DOCUMENT RESUME

ED 176 366 EA 012 062

AUTHOR Wendel, Frederick C., Ed.
TITLE Maintaining Quality Education in the Face of Declining Resources. Briefings in Educational Issues Number 2.
INSTITUTION Nebraska Univ., Lincoln.
PUB DATE Mar 79
NOTE 141p.; Document prepared through the Division of Vocational Services

EDRS PRICE MF01/PC06 Plus Postage.
DESCRIPTORS Budgeting; Cocurricular Activities; Community Involvement; Curriculum Development; Decision Making; *Declining Enrollment; Educational Programs; *Educational Quality; Efficiency; Elementary Secondary Education; Handicapped Students; Long Range Planning; Program Budgeting; Program Planning; Reduction in Force; *Retrenchment; School Size; Special Education

ABSTRACT

Focusing on the conditions brought about by declining enrollment and resources, this book presents problems and suggests possible ways of dealing with them. Chapter 1 lists social forces that have long-term implications for maintenance of quality education. The second chapter applies the concept "smaller is better" to education. Several planning models and strategies for determining alternative solutions make up the third chapter. A rational model for reviewing curriculum offerings and programs is presented in Chapter 4. In Chapter 5, critical issues related to student activity programs are reviewed. The next chapter presents practical techniques for reducing costs through budget review. A brief summary of an earlier publication on the policies and procedures for dealing with reduction in force (RIF) is given in Chapter 7. Chapter 8 explores programming, staffing, and other issues related to special education. The last chapter, aimed at school board members and administrators, presents the implications of declining enrollments, school closings, reorganization, and consolidation. The main thesis of the report is that school leaders can maintain quality education only if they utilize extensive planning, community involvement, priority setting, close examination of expenditures, and sound management practices. An extensive annotated bibliography compiled from an ERIC search is included. (Author/JM)

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# MAINTAINING QUALITY EDUCATION IN THE FACE OF DECLINING RESOURCES

Edited

by

Frederick C. Wendel

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Number 2

March, 1979

BRIEFINGS IN EDUCATIONAL ISSUES
Number 2
March, 1979

# MAINTAINING QUALITY EDUCATION IN THE FACE OF DECLINING RESOURCES

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## PREFACE

The first book in this series of Briefings on Educational Issues was **Reduction in Force: Policies, Practices, and Implications for Education.** This book, the second in the series, is an examination and discussion of one of the major issues of the day—the management of declining enrollments and resources. The idea and stimulation for this publication came from Dr. Ward Sybouts, Professor of Secondary Education and Educational Administration, University of Nebraska-Lincoln, who also serves Teachers College as Coordinator of Educational Services. The identification of the problems caused by declining enrollments and resources was made through his contacts with school administrators in Nebraska. Additional discussions with officials of the Nebraska State Department of Education and of other states' schools and agencies and a review of the literature revealed that this issue was facing school administrators across the nation and in the Great Plains region as well.

A team of eight members of Teachers College faculty agreed to develop materials on the management of decline. These professors were: Gerald R. Boardman, C. Cale Hudson, Edgar A. Kelley, O. W. Kopp, Ward Sybouts, Stanley F. Vasa, L. James Walter, and Frederick C. Wendel. Grateful appreciation is extended to these individuals for their efforts in preparing the material and contending with publication deadlines.

Dr. Glenn Ford, Director of Conferences and Institutes, Division of Continuing Studies, University of Nebraska-Lincoln, has aided greatly in the coordination of planning and publication of both books in this series.

Words of thanks are also credited to the secretaries who typed the material: Claire Baumann, Nadyne Beideck, Luise Berner, Linda Hotovy, Debi McKeeman, Marlene Mullins, Nancy Jo Nilson, Marlene Starr, and Mary Vocelka.

Special thanks are due to Joan Orender and Paula Durling, Consultants, Information Dissemination, Nebraska State Department of Education. They were instrumental in developing the computer search of the literature which forms the bulk of the Bibliography.

The annotated bibliography was compiled by the editor from the computer printouts. The number of references generated by the computer search was voluminous and efforts were made to include references of direct import to this book. The annotated references contain a great deal of useful information in themselves. The references are grouped by three major topics: I. Administration and Organization, II. The Instructional Program, and III. The Management of Decline. Sub-topics were developed for each of the three major topics as an additional aid to the reader to find information on a subject of interest. An outline of the organization of the Bibliography precedes the references.

Frederick C. Wendel
Editor
March, 1979

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## Chapter I

## PERSPECTIVE: QUALITY IN THE PUBLIC SCHOOLS

While the nature of public education is a chronic debate in American society, and even though agreement is present that quality is to be sought in educational enterprises, the continuing debate is about the critical realities which face citizens and educators.

Observation of the educational and social scene, in an attempt to identify critical realities which impact upon schools, places each of us in the role of being one of the six blind men of Indostan who visited an elephant. Each, by "observation", described the elephant in a differing manner. Each had touched a different part of the elephant, each was certain that his own description was both complete and correct.

> And so these men of Indostan
> Disputed loud and long,
> Each in his own opinion
> Exceeding stiff and strong,
> Though each was partly in the right,
> and all were in the wrong![1]

It is not necessary to be physically blind, as the six men of Indostan were, to have widely differing views about the same phenomenon. As Lessinger has noted, in a discussion of the concept of accountability, "education under the spotlight of accountability stands naked and exposed. Nakedness infers neither praise or blame; it does suggest honesty. What one sees in the naked form is as much a product of the viewer as of the object viewed."[2] Phrased differently, a problem for one person is an opportunity for another.

Broudy has suggested that educators, in any discussion of educational issues, have a "happy time listing the factors that cannot be overlooked."[3] This concern is, all too often, a myopic concern. Like the blind men, after their visit to the elephant, the part may be misunderstood and the whole never comprehended. Educators must, on occasion, step backwards from their involvement with educational issues of the moment so that it becomes possible to consider "another view of the elephant."

In the chapters which follow, a set of selected issues are examined in depth. These issues concern the principles of planning which can be used to respond to issues such as declining enrollments, a continuing escalation of the costs of education, societal concerns about the costs of all governmental services, and the increasing public services when decisions must be made about the allocation of limited resources. Specific attention is given to problems of reduction in budgets

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[1]John Godfrey Saxe, "The Blind Men and the Elephant," in **100 Plus American Poems**, edited by Paul Molloy (New York: Scholastic Book Services, 1970), 137-138.

[2]Leon M. Lessinger, "Foreword," in Arthur V. Olson and Joe A. Richardson, **Accountability: Curricular Applications** (Scranton: Intext Educational Publishers, 1972), v.

[3]Harry S. Broudy. **The Real World of the Public Schools** (New York: Harcourt, Brace, Jovanovich, Inc., 1972), 143.

(RIB), reductions in services to kids (RISK), and reductions in curriculum (RIC).[4]

In the remainder of this chapter, a frame of reference is described so that issues of RIB, RISK and RIC can be viewed in the context of historical, social and public policy considerations.

## CRITICAL REALITIES FOR SOCIETY AND THE PUBLIC SCHOOLS

If schools are to maintain or improve the quality of the services provided, the critical realities which are present in the society must be dealt with, directly and through involvement of the total school-community. What are the critical realities? While the answers might vary from one observer to another, Hoppe has suggested that the following factors are of importance:[5]

1. Change.
2. The Economy.
3. Technology and Science.
4. Leisure and Work.
5. Communication.
6. The Human Population.
7. Ecology and Pollution.
8. Government and Politics.
9. Conflict and War and Peace.
10. Values and Life-Styles.

While most or all of the critical realities described may be seen as being present in the society, the past two decades have been a period of serious debate about schools and about the perspectives which are held by educators. Two major perceptions of this history and role of schools exist and are widely debated. From one perspective, a foundation is laid for the ratification of established educational goals and institutions and the values they reflect. Within this framework, the emphasis is on assumptions about the value of schools, e.g., "To get a good job, get a good education", and upon equating schooling—methods, procedures, programs—with education. The second perspective is one which encourages critical reassessment and fresh policy departures. From this perspective evidence has been presented, and opinions asserted that schools have exhibited a greater concern with moral training than with education and that the goals of those who have controlled schools have been ambivalent or opposed to the education of minorities and working class people.[6]

These two perspectives—the ratification of established educational goals or critical reassessment and fresh policy departures—can contribute, alone or in

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[4]Edgar A. Kelley, editor. **Reduction in Force: Policies, Practices and Implications for Education** (Lincoln: University of Nebraska, Teachers College, Division of Educational Services. **Briefings in Educational Issues**, No. 1, November, 1978.)

[5]Arthur Hoppe, "Critical Realities in School and Society", Chapter I in **Improving the Human Condition: Curricular Response to Critical Realities**, edited by James John Jelinek. (Washington, D. C.: Association for Supervision and Curriculum Development, 1978 Yearbook).

[6]Donald R. Warren. "A Past for the Present", Chapter 1 in **History, Education, and Public Policy**, edited by Donald R. Warren. The National Society for the Study of Education Series on Contemporary Educational Issues. (Berkeley, California: McCutchan Publishing Company, 1978).

combination, to an examination of the critical realities which confront schools and the society. As Warren has reported:[7]

> The nation's present . . . is so radically different from previous eras that its people may be well advised to sever connections. The proposed role for history becomes, ironically, helping people to appreciate the irrelevance of the past, *the need to reconceptualize their problems, and the likelihood that solutions will come slowly.* (Italics added for emphasis.)

In education planning and operation, the major current need is for a reconceptualization of the mission and purposes of schools accompanied by a fresh and renewed commitment to dealing with problems which confront education and the society. Such a task requires both an acceptance and a rejection of the idealism which has characterized educational practices and assumptions. Education should accept and be motivated by a desire to "do something", to indeed seek to make practices better than has heretofore been the case. At the same time educators must improve their levels of accountability to the society by avoidance of the historically common practice of promising more than they have the power or resources to accomplish.

In the remainder of this chapter, each of the critical realities which were identified by Hoppe are briefly examined. In each school district, these same realities should be examined in greater detail.

## CHANGE

The claim that change is rapid and that we are confronted with "future shock" has been fashionable in our society and, in particular, among educators. An alternate view is that change occurs slowly, is accompanied by confusion and conflict—indeed, most theorists describe change and conflict as being synonymous concepts—and that the actual problems confronted by most individuals and organizations are problems which arise from "present shock". What is less common is attention to the dictum that the future belongs to those who plan it. For educational institutions, there is substantial evidence that meaningful change and meaningful responses to problems and issues will occur only when careful attention is given to long-range planning. If such planning does not occur in a school district, its officials and its patrons will be constantly confronted with crises which appear to emerge suddenly. In reality, most such crises can be identified well in advance if sound practices of planning are followed. (Such processes are described in another chapter of this publication.)

## THE ECONOMY

In 1967, the United States became the world's first post-industrial society, i.e., the first society in which **service** instead of **production** became the primary basis of the economic structure. There are no historical models or examples for our society to follow in responding to this major shift; the next 50 to 100 years will be a period

[7] **Ibid.**, 17.

of readjustment to a changed economic base for the society. The initial thirty to fifty years—a period which may well take the nation to the end of the present century—will be a period of confusion. Certainly the first decade of our existence as a post-industrial society has been characterized by economic instability. In such a society, priorities for social and governmental programs and expenditures are fluctuating. Other forces—changes in the age distributions of the population and changes in the availability of raw materials—accelerate the basic shifts in economic structure. For schools, there is little likelihood that the society will ever again commit the same proportion of its total resources to education as were committed between 1950 and 1975. The proportion of governmental expenses committed to education has declined and will continue to decline until new levels, acceptable to the society, are reached. What those new levels will be is not a question which can be answered at the present time. But educational agencies must clearly respond to changed priorities, changed economic structures, and a changed population by more carefully identifying priorities for educational operations and the real limits of the capabilities of educational agencies to provide for social needs.

## TECHNOLOGY AND SCIENCE

In the latter part of the nineteenth century, one U. S. Congressman introduced a resolution to abolish the U. S. Patent Office because, in his opinion, everything that could be invented had been invented. Since that time, each decade has seen an increase in the number of patents which are granted for new inventions or new scientific processes. If our society is a post-industrial society, it is also a technological society. Among the professions, education is most apprehensive about, and less likely to use, new technological inventions. Other gigantic bureaucratic complexes—banking, military, police—have readily adopted the use of computer storage and retrieval of almost all kinds of records; yet schools remain cluttered with files, with problems in transmitting information (e. g., student records) from one locale to another and are characterized as handicraft industry in an age of technological wizardry. As societal institutions, schools and the legal profession are the last two areas to respond to changes which have already occurred in the life space of the population. Even the curriculum offered to students is often one designed to prepare persons for life in the nineteenth or early twentieth century.

## LEISURE AND WORK

We are the society we are, to no small degree, because of the work ethic of our culture. Some persons lament the loss of the work ethic. It is more accurate, in the view of others, to suggest that the culture has transplanted the work ethic to leisure living. For many Americans, a vacation is a period of time in which the expenditure of energy is more intensive than it is for the work role. For our culture, the availability of increased time for "leisure" living has stimulated the development of a frenetic and harried use of leisure time; the slogans and catchphrases of the post-industrial society are ones which seek to encourage people to "get the most out of life" and to remember that "you only go around once in life". As a culture, we have not yet placed the same degree of emphasis on work, public service, and the use of time for personal interest. Instead of a more healthy and comprehensive

view, we are characterized as a society which sees "work" as a necessity, to be kept to the minimum, and "leisure" as personal gratification. In that sense, at least, we are an adolescent society. In the post-Watergate period, we are opposed to our own societal institutions and our opposition is similar to the conflicts which occur between adolescents and the adult world. As a society, we must move forward to a new maturity in our view of our culture, its limitations, its strengths and our own places as contributing members within the culture.

## COMMUNICATION

In a society with increasing interdependence, increasing technological capabilities, and one which is faced with basic shifts in social, political, and economic structures, communication is a paramount concern. This concern is given a further impetus when the society seeks to serve all people and to respond to pluralistic values and goals. From a number of sources, it seems probable that communication for simple existence and maintenance will and does use as much as seventy percent of our time. Unfortunately, the explosion of technological capabilities for communication accompanied by an increased need for communication in the type of society we face has been characterized by an emphasis on immediate gratification. Thus, most of our population is unable to cope with delayed rewards or gratification and is not willing to work toward or accept partial solutions to problems which confront the society and its institutions. Instead, we expect that we can solve a problem in a half-hour and, from our exposure to television, with time out for commercials. This myopic social concern with immediate results is lessening the sense of mission and purpose in the society and for individuals; the outcome is the development of the myth that the social promise of **equality of opportunity** is to be reworded as a promise of **equality.** At times, educators have contributed to this problem. We may promise to provide all students with "average" learning—a mathematical impossibility.

## THE HUMAN POPULATION

Aging. One word describes our population. At the start of the 1970's, the average age of Americans was at the lowest point in recorded history; we are aging as a society and the prognosis is that we will continue to do so for the remainder of this century. The adolescence of the society and the adolescence of its demands for immediate gratification, which climaxed during the late 1960's, is being continued in the views and expectations of the members of our society. While we pay homage to the cult of youth, the reality is that our society is aging and that this shift will bring fundamental shifts in public policy, including education policy. Yet, we have been a caste society—we have separated the age groups and now face the problem of improving understanding and communication between differing age and social groups. Schools, in both programs and practices, must respond to this societal need. Even with a decline in the proportion of resources and emphasis given to schools, schools remain the single largest and most important public institution. From the successes of schools and the success of the American ideal of mass education, we have prepared a culture which is the most informed and sophisticated the world has known.The crucial issues are whether we can use the knowledge and sophistication

which exist as a basis for setting new goals and new priorities for the world of tomorrow. At the present time, economic and political instability in the culture have caused many citizens, including many educators, to respond with attempts to restore the past. We must understand our past but it is forever gone; the challenge is to create the future.

## ECOLOGY AND POLLUTION

The problems in these areas are well-known. Knowledge, however, does not translate by a natural process into a re-ordering of social goals and priorities. The society has begun the task of cleaning its own house but these issues, accompanied by changes in the availability of raw materials, will continue to be chronic concerns for the society. Schools must provide students with an understanding of these concerns and with opportunities to be contributors to solutions. We must seek to help our students understand the importance of the dictum: "If you're not part of the solution, you're part of the problem."

## GOVERNMENT AND POLITICS

At the present time, Americans do not have high levels of confidence in their governmental institutions, including schools. What educators must remember, however, is that schools have higher—much higher—levels of public confidence than do most other societal and governmental institutions. Pessimism about the ability of our population to respond to the social issues which must be confronted is one way to lower confidence; optimism, accompanied by a willingness to plan and to be held accountable, can restore and build public confidence. At the start of the twentieth century, Americans responded to political pressures (brought by educators and well-intentioned citizens) to "remove the school from politics." At the present time, many educators and citizens mouth the platitude that education is, and should be, non-political. What we must recognize, and not apologize for, is that the educational establishment has been one of the most political of the social institutions of our culture.

The success in political behaviors provided schools with the myth that we are non-political; it was this same success that permitted the educational establishment to grow until it became the largest single user of public resources. When expenditures of all levels of government are considered, education used more public resources than the military—even during the height of the wars in Indochina during the 1960's. Schools, in all cultures and in all historical periods of time, have been expected to serve the present and emerging needs of a society and to transmit a sense of continuity for the culture of the society. The American social experiment of separating schools from other institutions is, in part, a failure. What is needed is a new era of cooperative planning between schools and the other social institutions which serve each community and the total society.

## CONFLICT AND WAR AND PEACE

In a healthy individual, institution, or society there is conflict; it is one of the major sources of renewal and growth. At the same time, the levels of conflict which are present must be ones which persons involved in the conflict see as being solvable

or levels which can be coped with. Conflict is a negative factor when it leads to pessimism, withdrawal, or a sense of insufficiency. The current period of mankind's history is both like, and unlike, earlier periods. With major shifts occurring—in political alignments, in the availability of resources, and in the structure of national and world economies—we face a situation similar to the 14th century. Barbara Tuchman's recent book on the 14th century, **A Distant Mirror**, provides one view of how man responded to cataclysmic shifts in the social order. We exist because our forefathers did respond, eventually, with effectiveness. We can, as a nation and as members of a world culture, respond with new measures for new challenges. It is the excitement of opportunities we face that should be the focus of our efforts rather than a lamentation for a world which has passed. During the next 50 to 100 years, mankind will need to answer the question of whether the world will be characterized by war or by peace. While the answer is not clear and guarantees cannot be made, our schools have the obligation of helping students prepare for a world characterized by problems of war and peace, by chronic and intense conflict both within the society and between our culture or nation and the world.

## VALUES AND LIFE-STYLES

In each of the other critical realities, values of the culture have been discussed. It will be what we value that determines which of the alternate futures for the society will prevail. In other chapters, this topic is discussed; in the closing section of this chapter, the values which must permeate schools are discussed.

## SUMMARY

Quality in the public schools, now and for the future, will depend in large measure on the quality of the planning which the society and educators provide. Good planning will be specific, value-based, long-range, and realistic.

Quality in an educational institution requires, as an initial step, an examination of social concerns and critical realities.

American public education was developed and prospered as a social tool to provide mass education, to provide equality of opportunity for a diverse population, to provide a shared sense of nation and society for an immigrant population. Those purposes, while not totally achieved, have been, for all practical purposes, met by our schools. Our future purposes must be established.

The major challenge which now confronts both schools and society is a need to establish new goals, to build on successes for a desired future. If we are to have a future worth having, we must plan the nature of that future and work to accomplish it. To do so, certain conditions are imperative: leaders in education, including members of boards of education and administrators in public schools, must model practices which express values for future generations. Those practices include (1) a willingness to be accountable and to limit promises to what can be delivered, (2) a willingness to engage in long-range planning and to select and establish priorities from among available choices, (3) an eagerness to include both citizens and other agencies in join searches for new missions and activities, and (4), an emphasis on an optimistic view of mankind's ability to successfully respond to conflict.

In the chapters which follow, specific strategies for examining the purposes and practices of schools are described. These strategies can help the education profession as it seeks maturity rather than adolescence and as it helps a society move toward greater maturity. The task is exciting. It is unlikely that it will be completed within the lifetime of those who must begin. But, begin we must!

## Chapter 2

## THE IMPACT OF GETTING SMALLER

During the quarter of a century following World War II, America grew in population and Gross National Product. The combination of an expanding economy and population manifested itself in school systems of increased size in virtually every corner of the nation. America was bigger and better than ever and as a people continued the long-standing tradition of looking at the world and self-appraisingly through a perspective that said in just about every conceivable way that "bigger is better." After all, hadn't the nation gone through the Western movement and territorial expansion, built an economy based on expansion, boasted of being the strongest world power, raced other nations into space, built the biggest highway system in the world, erected the world's tallest buildings in our cities, and advertised countless world records for the biggest of just about any and everything? There is importance to Americans that the California Redwood is the biggest, Multnomah Falls is the highest, the Mississippi River is the biggest, that the Stone Mountain Sculpture in Georgia is the biggest sculpture in the world and on and on. When something wasn't the biggest, Americans turned attention to "the most." Detroit produced the most and biggest cars and McDonald's made the most hamburgers. Producing the most of a commodity was in a sense viewed as being the biggest and the best.

The American school system mirrored society in the quest for being the biggest and the best. When enrollment figures in a district moved significantly or unexpectedly upward, comments would be made by school administrators with voice inflections connoting a positive reaction. When, by contrast, enrollments declined, the comments from neighboring superintendents clearly indicated a negative response to the loss of enrollment.

During the twenty-five years following World War II, the problems associated with increased enrollments and the construction of new facilities created demanding and difficult times for school boards, administrators, and staff members. Shortages of staff and materials interfered with the operation of the school program, lack of facilities forced double shifts in some districts, and building programs caused financial burdens. Growth was painful but viewed as positive. A positive attitude generally prevailed because educators were involved with the fulfillment of one facet of the American dream—getting bigger and better. Experience has now revealed that problems and pain associated with growth were much less severe and demanding than those associated with getting smaller when facing declining numbers and declining resources.

During periods of growth or decline the primary purpose of the school is not always easy to keep in clear focus. American educators demonstrated during growth periods that maintaining the quality of education for the benefit of children and youth was foremost in their minds. Throughout times of declining numbers and resources it will be equally important to keep the basic purpose of the school in mind. Schools are to educate children and youth and that mission must remain the highest priority—schools are for kids.

Education is an enterprise in which the value of public involvement has been recognized and established in theory, practice, and legal provisions. In times of financial austerity or declining budgets, educators may be tempted to play their cards closer to their vests and to be less willing to involve community representatives in planning, goal setting, and governance of the school. The temptation to "go it alone," or to exclude community participation can prove to be counter productive. Education is a process in which the community has an important stake and one in which it must be involved. This is particularly true during times of austerity.

The importance of leadership in education has been stressed in every known way by professionals and by citizens interested in education. Observers have tried for several decades to define, describe, or classify the qualities or ingredients involved in leadership. Leadership is recognized, and it exists even if it seemingly defies simple definition. During periods of adversity leadership takes on even more significance. One has only to look to crucial times throughout history to find the strength of leaders emerging during times of crises or conflicts to document the importance of having strong leaders. Strong leaders have throughout the recorded history of mankind emerged and often made their greatest contributions when pressures and forces seemed most difficult. As education enters a period of declining resources, the demands upon those in leadership roles will be tested, no less severely than in any period of expansion and growth. Positive leadership will be a premium commodity and a necessity if schools are to maintain the best possible quality in programs for children and youth during periods of declining resources.

## RECOGNIZING THAT BIGGER IS NOT ALWAYS BETTER

The American people are accustomed to thinking that bigger is better. When faced with a decline in quantitative factors, people are inclined to perceive an accompanying or parallel decline in qualitative factors. Every morning television viewers listen to Ray Brady to see if the Dow Jones is up—if so, good. They want to know if industrial production is up by .01 percent over a year ago and if the Gross National Product is up over last year. Economically, our system has to get bigger to be better. In spite of a serious energy situation in which great amounts of American dollars are spent overseas for oil with an increasing trade deficit, Americans continue to buy large cars in record numbers. A recent survey in the automotive industry revealed that the majority of the small car buyers were selecting small cars with the largest engines. An examination of the pattern of automotive manufacturers in recent decades shows that when a new model is introduced, it may be modestly sized and powered, but with each succeeding year and model change the car becomes bigger with a larger motor until it rivals or surpasses models that were in a supposedly bigger class. The entire cycle is started all over again as the "bigger is better" state of mind dictates our tastes and how we spend money for transportation. Media follows and fosters the "bigger is better" concept in many ways. Movies developed the wide screen. Television screens went from 17 inches or 21 inches to sets which are large enough to fill an entire wall in the family room. Sound systems went from monaural to high fidelity stereo with increased speaker size and amplifiers. Now, in place of two sound tracks, every car worthy of transporting a girl on a date has an eight track stereo, as "bigger is better" thinking dominates.

To move in a counter pattern to the "bigger is better" concept is difficult and often hazardous. To convince people in our society that being smaller can be good and have positive benefits is extremely difficult. The concept that being smaller can be better is counter to the American state of mind. Such a concept contradicts our thinking based on the growth of our nation, our economy, our view of sports—our whole way of life. We all know the difficulty in making soldiers think of advancing during periods of defeat, of making people laugh during times of sorrow. In like manner, there is difficulty for educators and community representatives to think of program improvement during times of declining resources.

Examples do exist to demonstrate that times of declining size or resources can be turned into positive results and periods of improvement. An example of "smaller is better" was demonstrated in the story of a regional airline that had grown with the times. Its management concluded the airline should move from twin engine, propeller driven planes into becoming a major competitive airline through the acquisition of a fleet of Boeing 727's. With the bigger equipment employing bigger crews and facilities, the managers perceived that "bigger was going to be better." But soon the number of fares declined and financial problems grew to dangerous proportions. New management officers assumed control, sold the 727's, inaugurated smaller jets, and designed a smaller airline tailored to meet the needs of the region and its people. Pilots complained bitterly, claiming that selling the big jets and going to smaller equipment simply promised to remove the airline from big time and rendered them incapable of meeting their competition. Time has now proven the airline management correct. Improved service and attention to quality has moved the airline into a pattern of increased profit. Pilots' job security has been insured as the airline enjoys an improved reputation with an accompanying improvement in financial statements. An improved reputation was built out of becoming smaller and better.

## REALITIES TO CONSIDER DURING TIMES OF DECLINE

When enrollments or resources decline, there are some events that will inevitably occur. Recognition of the outcomes which will accompany situations of declining numbers or resources is a prerequisite to coping with conditions.

Decline causes fear and apprehension among teachers. Job security for staff is an obvious concern, but there are numerous other concerns which may be felt. A coach may feel depressed when declining enrollments move his school from one athletic competition classification "down" to a smaller classification. Teachers who have been teaching in one subject area recognize they may have to teach in two subject areas because of delining enrollments. Decline is viewed by staff as more threatening and painful than expansion.

Morale may deteriorate with declining numbers and resources. Staff members may experience forms of depression and may not demonstrate as much or as frequent positive responses as they did during periods of expansion in which there was excitement and enthusiasm accompanying growth.

Cooperative efforts will be hard to achieve when numbers and resources are declining. With increased levels of insecurity there will often come a reluctance to share and cooperate among staff. Protective instincts cause individuals to take a

more selfish posture as a means of self-preservation.

A propensity toward retrenchment will occur. Along with the decline in morale and less willingness to be involved in cooperative ventures, a deterioration of climate may occur; there may be less receptivity to thinking positively, reluctance to try something new, an inability to sort out opportunities or advantages in a new situation and a tendency to say, "It can't be done." Accompanying these symptoms, staff members may tire more easily; they may be more argumentative as they show signs of retreating and retrenchment.

Maintaining or expanding budgets is not advisable nor defensible for a reduced program. When declining enrollments occur, expanded budgets beyond inflationary limits cannot be justified and will in the long run, if insisted upon, prove to be counter productive.

Action planning will be required to cope with declining numbers and resources. Problems caused by reduction in resources, particularly when compounded by increased costs, will not go away if ignored. Educational leaders will be called upon to give direction and support to their communities and staff members in actively planning to meet the challenge of declining resources. The real challenge for educational leaders will be to turn a seemingly negative set of circumstances into a positive and productive force.

## NO SIMPLE SOLUTIONS

Those who would search for a single, simplistic solution to the multitude of problems that can accompany periods of declining enrollment and resources are bound to be disappointed. No pat answers or fail-safe formulas are available to resolve the problems which accompany periods of decline. Several points for consideration can be suggested which are actually no more than applying known and proven approaches used by successful educational leaders for years.

Take a pro-active position in which planning is done in advance rather than waiting until the problem is at hand. Pro-active planning will call for the analysis of data and will carry with the necessary projections certain risks. But the risk of making a wrong projection may be much less than making no projection. Advance planning becomes invaluable.

Reexamine goals, constraints and priorities. This is a function in which community and staff need to work in close harmony with realistic involvement from all significant groups. Goals and priorities must be agreed upon before any program elements or components are reviewed or considered for possible modification. If this is not done and supporters or advocates of different programs are called upon to explain or justify the program with which they are involved, a review becomes a process where each person protects and defends his/her turf. In so doing solidification of the status quo is all that is accomplished, and modifications or adjustments in the program become more difficult than ever.

Review, clarify, and communicate policies of the district. Once policies are communicated widely and representative individuals have had a voice in their construction and approval, needed changes in regulations and procedures can be determined. Staff understanding and ownership of policies are important in the successful implementation of efforts to reduce numerical dimensions while increasing qualitative dimensions of the school program.

"Get your house in order" is an admonishment to be adhered to during times when there may be potential attacks from within or from outside an organization. Sound management practices and efficiency should be achieved. All facets of a system must be defensible.

The importance of good school-community relations cannot be overlooked during times of declining resources. Principles and practices in the field can be of major importance in planning and conducting a public relations program during times of austerity and decline.

Protect and support staff in every way possible while keeping in mind that schools are to serve the needs of children and youth.

1. Involve staff in planning for improved programs in the face of declining resources.
2. Communicate with staff all relevant information and the fact their welfare and livelihood are important. The attitudes and behavior of administrative staff may be much more important than memoranda or written procedures.
3. Resignations and retirements, including plans for early retirements, may be one way to reduce staff size by not replacing staff that leave.
4. Reassignment of existing staff to new roles may be appropriate in selected situations. In some cases this can be done with no additional training for the staff involved. In other situations, retraining or additional training may be needed. If possible, district resources should be made available to train staff to accept new or different roles. While some positive results can be achieved by retraining and reassignment, there are also negative effects that can accrue. A teacher who is forced to give up a first-choice will find less job satisfaction when thrust into a second job choice. The security of an experienced teacher can be threatened by the retraining and reassignment process. Questions may develop regarding job effectiveness and satisfaction, new contacts and staff relationships, and with issues relating to what the new role means in terms of status within the organization.
5. Promotion from within has been viewed as having both advantages and disadvantages. During times of declining numbers and resources, internal promotions may be an increasingly viable alternative. Internal promotions may not tend to foster a fresh view or new motivation for program improvement at a time when it may be needed. Internal promotion is, however, one way to protect staff positions.
6. Set up a definite plan to aid teachers to find employment who are forced to leave the district because of a reduction in force.
7. In-service programs should focus on needs staff members perceive and should be designed to be on-going and supportive during times of decline. Personal adjustment and self-renewal may need more attention through in-service activities as staff turnover declines and the average age and tenure of staff increases.

Refuse to succumb to negative thinking. When leaders express negative views, or show signs of depression or defeat, this has an impact upon staff. Positive and forward looking leadership is demanded to overcome the debilitating influence of declining numbers and resources.

Involve staff in staff and program development efforts. Create the Hawthorn effect and capitalize upon it as one force to combat feelings of defeat so often associated with periods of decline.

Evaluate the impact of all program adjustments. Tradition often suggests the old way is the only way. Tradition tempts a staff into saying the old is the best because it is known and comfortable when, in actuality, the old way may prove to be less effective than some different way. Evaluation of process and of product becomes important so that the impact of adjustments may be measured. Measures of student performance are needed for cognitive achievement, the acquisition of psychomotor skills, attitudes and perceptions of the program. Teachers need to provide feedback about their perceptions of the program, their attitudes, and affective perceptions coupled with measures of job satisfaction. The programmatic issues need to be assessed in terms of student learning, climate, and cost effectiveness.

## CONCLUSION

When school personnel are faced with the probem of declining enrollments and reduced resources, they must deal with a phenomenon that goes against the great American tradition that bigger is better. There are, during times of declining numbers and resources, various realities which can seemingly not be avoided. Decline causes trauma among staff, morale dips, and cooperation is less easily achieved. Expanding budgets in the face of current conditions will be increasingly hard to defend. To wait and react is ill-advised so assuming a positive, pro-active posture becomes important. While no easy solutions are available to solve the problems which declining numbers and resources bring to education, there are some general steps which can be applied and adopted to meet each local situation. It will be important to reexamine goals, constraints and priorities and then to review policies and procedures. Getting one's house in order will be an important step and will lend strength to developing good public relations. Staff will need to know they will receive support and protection within the reasonable limits of the district. Leaders in a district need to accentuate the positive in every possible way and to involve staff in program involvement efforts to create a positive and forward momentum. Finally, all efforts to adjust to declining numbers and resources must be evaluated so that adequate information about how the program functions and how it will affect students will be known.

## Chapter 3

## PLANNING - A SYSTEMATIC APPROACH TO ALTERNATIVE SOLUTIONS

As a result of the rapidly changing political, social, and demographic influences on public education, administrators have more and more need to seek methods for improving the process utilized in identifying and assessing alternative actons. Techniques for reducing costs through school budget review, reduction in force, reduction in services and activities, program review and improvement decisions, and implementation of school-community relation programs are areas of application for planning.

The need for planning in education today is not a highly disputed point. Wasteful imbalances within the educational system must be reduced. The pressures caused by costs rising faster than revenues require that available resources be allocated more judiciously and effectively. While the costs increase, so do demands for more education services and programs and more alternatives in education. The complexity of our times has forced every segment of society to develop better methods to collect information to be used in decision-making.

Planning is an important tool which can lead to an understanding of the complexity of the situation, provide institutional continuity, provide debate and discussion without action, elicit systematic over-all direction, point out weaknesses, force an institution to make public decisions on major matters, work to overcome stagnation and status quo, help to provide realism, help to explain in objective dollar and cents terms the reasons for administrative positions, and provide important collegial involvement and input to a decision-making process. Unfortunately, administrators have frequently had little if any formal training in the various techniques of planning. The result has been that plans are often ill-conceived or not implemented, and frustration with the whole process increases.

### SOME DEFINITIONS

However formal or informal, any effort to deal in a methodologically sound way with so elusive a phenomenon as planning must be anteceded by a delineation of planning. A short examination of some commonly used definitions will facilitate the identification of the formal elements of planning.

1. Dror: Planning is a **process** of preparing a set of decisions for **action** in the **future** directed at achieving **goals** by prefereable **means.**
2. Meeth: Planning is setting the **goals,** ascertain the **needs,** ascertain the **resources,** make a **systematic** plan and **program** (actions or means).
3. Pack: Planning is the **process** of developing **alternative means** for achieving **goals** and **objectives.**

In an analysis of these definitions, the key elements identified with planning are: process, goals, needs, future, alternatives, action (means) and resources.

Although planning can make no claim as a panacea to problems, it does provide for viewing and coping with change. Planning makes it possible to improve our control over the nature of the changes that continue to occur and our responses to them. Planning provides a process for determining future, as well as present, needs

and the means for developing alternative policies/programs to meet those needs. By employing the concepts of a systematic analysis of problems, alternatives, and resource allocation, the district is in a better position to make the right policy and program decisions and allocate increasingly scarce resources at budget time. A knowledge of problem areas and priorities provide a good place to start in making decisions which can produce the most impact from the funds and other resources available.

## PLANNING PROCESS

The basic questions structuring the planning process are (1) Why? (Philosophy of district, (2) Where are we now? (Assessment of present situation), (3) Where do we want to go? (Goals of district), (4) How are we going to get there? (Alternative solution), and (5) How will we know when we get there? (Evaluation). A formal schematic of the planning process is presented in Figure 1.

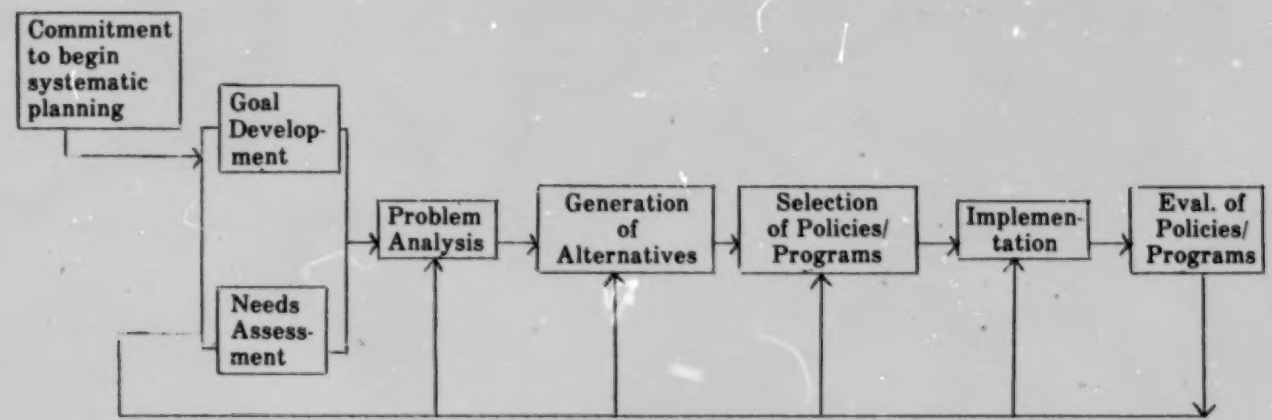


FIGURE 1

Generic Planning Model

The above planning model was developed by the Bureau of Planning, Divisions of Research, Planning and Evaluation, New Jersey Department of Education, 225 West State Street, Trenton, New Jersey, 08625. Specific planning handbooks are available for each component of the model by writing to the address given. The basic framework of the New Jersey model will be used for discussion and presentation of the key concepts involved in the formal planning process as presented later in this paper. Additionally several other excellent planning models available for application to particular problems of the public schools are presented with a brief description and where materials can be obtained.

1. **A Process Model for Developing Curriculum**/Jefferson County
   Jefferson County Public Schools
   Division of Instructional Services
   1209 Quail Street
   Lakewood, Colorado 80215

This is a planning model for review and modification of curriculum. The major components are Needs Identification, Establishment of Goals and Objectives, Production, Pilot Testing, Field Testing, Evaluation/Revision, and Implementation. Each component is sub-divided into specific functions and then into specific tasks to be accomplished. Additionally an overall schematic of the entire process is presented.

2. a. **Curriculum Design**/Bellevue
   Bellevue Public Schools
   Assistant Superintendent of Curriculum
   2009 Franklin Street
   Bellevue, Nebraska 68005

The Bellevue Curriculum Model provides for the systematic review of the total curriculum on a K-12 basis. The major components are Assessment, Development, and Implementation. The model provides for consideration of time, individual academic disciplines, and the responsibilities of personnel.

b. **Community Involvement**/Bellevue
   Bellevue Public Schools
   Assistant Superintendent for Program Planning
   2009 Franklin Street
   Bellevue, Nebraska 68005

The Bellevue Community Involvement model was applied in involving the community in the passing of a bond issue to build a new high school and in completing a community based school finance study. All processes are documented.

3. **Fresno Model**/Fresno County
   Fresno County Department of Education
   Superintendent
   Fresno, California

The Fresno Model is committed to the problem-solving approach and that there must be community involvement in the affairs of a school or a school district if there is to be a high quality educational offering. The major components are Impetus, Needs, Goals, Objectives, Solutions, Implementation, Evaluation and Recycle. Specific functions and tasks are described for each major component in the process.

4. **Dallas Planning Model**/Dallas
   Dallas Public Schools
   Communications and Community Relations Department
   3700 Ross Avenue
   Dallas, Texas 75204

The purpose of the Dallas planning process is to involve educators, students, parents, and the community as well as the Board of Education in assessing needs, assigning priorities and allocating resources as a part of the annual budgeting process. All activities are documented.

5. **Phi Delta Kappa Planning Model**/Phi Delta Kappa
   Phi Delta Kappa, Inc.
   Eighth and Union
   Box 789
   Bloomington, Indiana 47401

The Phi Delta Kappa Model is a three phase planning process involving Goal Determination and Needs Assessment, Performance Objectives and Implementation.

6. **Worldwide Planning Model**

   Worldwide Education and Research Institute
   2325 Stringham Avenue
   Salt Lake City, Utah 84108

The Worldwide Planning Model is based on a Goal Determination, Needs Assessment, Problem Analysis, Selection of Alternatives and Evaluation phase. Detailed working manuals are provided for each phase.

7. **Kaufman's System Planning Model**

   Professor of Education
   Florida State University
   Tallahassee, Florida

Kaufman's model is a generic model and the major components are Needs Problem Analysis, Specification of Outcomes, Identification of Requirements, Sequence of Outcomes and Identification of Alternative Strategies. Included in the process is a complete description of a mission, function, task, and method-means analysis.

8. **Banghart's Planning Model**

   Professor of Education
   Florida State University
   Tallahassee, Florida

Banghart's model is a generic model and the major components are Prologue, Defining the Educational Planning Problem, Analyzing Planning Problem Area, Conceptualizing and Designing Plans, Evaluating Plans, Specifying the Plan, Implementing the Plan, and Plan Feedback. Again, specific functions are provided for each component.

Information on any of the described planning models and their specific components may be obtained by contacting the sources indicated. Additionally other illustrations and applications may be obtained by contacting the author of this article. Presented next are some more specific information on each of the components illustrated in the generic planning model presented in Figure 1.

## COMMITMENT TO BEGIN SYSTEMATIC PLANNING

A good planning operation should include an early "pre-planning" phase. This is a period in which some basic decisions and policies are made about what is to be planned, how it will be planned, and the types of information and resources that are required and available. The pre-planning period is a good time to develop a climate of readiness for the planning activities which will follow. Some information items which are essential in guiding the pre-planning phase follow.

1. Is the motivation sufficiently strong to warrant formal planning (why)? Identify and analyze motivation for beginning the planning process:
   a. Internal motivation (policy, pressures or concerns)
      i. Board
      ii. Administration

iii. Staff
iv. Students

b. External motivation (legislative pressures or concerns)
i. Local
ii. State
iii. National

2. Are resources available to carry out a formal planning effort (what is needed)?

Identify and analyze feasibility:

a. Time
b. Personnel
c. Operating Structure
d. Financial Resources
e. Receptivity

3. Will a formal planning process get us where we want to go (result)?

Identify and analyze utility:

a. Expected outcomes
b. Usefulness of outcome
c. Receptivity of outcomes

4. Are these less expensive and equally effective alternatives to formal planning (other possibilities)?

Identify and analyze alternatives:

a. Identification of alternatives
b. Analysis of alternatives
c. Priority setting

5. What is decision (decide)?

Identify final decision and resources:

a. Formal planning, Yes or No?
b. If yes, what resources are to be made available?
c. If no, proceed with alternative.

The pre-planning procedure is usually initiated by one or more staff members or an administrator who introduced the idea to the district. A committee is set up to examine the questions presented. The school board must then either formally reject or accept the idea of adopting a formal planning process.

## GOAL DEVELOPMENT

This step defines the ends toward which efforts are directed. Goal determination defines "what should be"—the desired outcomes of the planning process. This stage can come before or after a needs assessment. There are three types of goal development models.

1. A **conference** with either selected or invited delegates or an open invitation to the public to attend. The steps are: a) Task Force decides who to invite;

b) Delegates selected and invited or open invitation to community or representatives from the school system selected; c) Publicity strategy decided on; d) Conference preparations made, site selected, materials collected, group leaders and recorders selected and trained; e) Conference held; and f) Prepared summary of conference proceedings and preliminary goals drafted.

2. Selected interest groups or a random sample of district residents are **interviewed.** The steps are: a) Task Force decides who to interview; b) Local interest group leaders identified or method to randomly select people from the community chosen; c) Interview questions written and interview instrument designed; d) Interviewers selected and trained; e) Persons to be interviewed notified and appointments made; f) Interviews conducted; and g) Interview data analyzed and combined into draft of preliminary goals.
3. **A public opinion poll** or a **survey** can be conducted. The survey is designed to evaluate the degree of agreement or disagreement within a community to a preliminary set of educational goals. It can be sent to every resident or a representative sample. A newspaper survey or a telephone interview are also possibilities.

## NEEDS ASSESSMENT

A needs assessment is a procedure or process that identifies the perceived or expressed needs of a school district. The process involves the use of various measurements and activities to obtain the data needed to define the gap between "what is" and "what should be." The district will be developing a data base of information on the district which will help in planning and problem-solving. The result is that the process provides a basis for an allocation of limited funds to solve specific problems and needs. There is no one time to begin an assessment although district constraints must be considered such as the budgetary cycle, school year and summer. Also involvement of the community, teachers, students, and administrators is an essential requirement of a needs assessment, so activities should be scheduled so the greatest number of people can participate. The major steps involved in a needs assessment are:

1. Obtain initial approval from administration.
2. Appoint an administrative team.
3. Orient and prepare team.
4. Orient staff.
5. Appoint a coordinator.
6. Appoint a committee.
7. Plan needs assessment. (The key questions to be considered during this s[illegible] are: Who participates in the process? What is the extent of community participation? How are community participants selected? How is the priority setting among the needs to be done? What are the tools of the needs assessment? What is the output of the needs assessment? What happens after the needs assessment? How long is the process? What costs are involved? What staff requirements are there? What explanatory materials are available? Are any training programs needed? Is the management of the process simple or hard? Are outside consultants needed)?

8. Complete needs assessment (Survey, reactionnaires, small group investigations, and community speak-ups are possibilities).
9. Prepare a final report.

Needs assessments which require extensive community and staff involvement are usually done once, and then repeated several years later. Others are simpler and lend themselves to a yearly application or you may decide to do an extensive assessment the first year, and in subsequent years a simplified version. For specific models see the planning references cited earlier.

## PROBLEM ANALYSIS

This stage involves examination of the reasons for the discrepancy between the goals and the needs and identification of the elements of the problem, their causal relationship, the relative impact of each, and the degree to which each can be altered. The problem analysis steps include:

1. Problem identification - more fully documents with relevant observations, values, data, and policies the problem or need previously identified.
2. Problem definition - a clear statement of what is compared to what should be about a situation including a clear statement of what the measurable end product should be as a result of solving the problem.
3. Analysis of cause - finding the causes which have occurred within a situation and therefore causing the problem. Two techniques which could be used here are Force Field Analysis and Techniques for analyzing distinctions and changes: What is and what is not the problem.

## GENERATION OF ALTERNATIVES AND SELECTION OF POLICIES/PROGRAMS

This stage involves searching and identifying a variety of cost effective options for solving a problem and meeting a desired outcome and secondly, screening the options and choosing the best one. Methods for handling this phase would be:

1. Program managers estimate the cost of each goal and its component objectives and tasks and examine each goal in terms of payoff and risk.
2. A task force is created, consisting of teachers, department chairpersons, administrators and a board representative. A group problem-solving approach called "brainstorming" is then used. The alternative solutions are then analyzed using costs, receptivity, financial and other resources required, success of similar ventures, time needed for implementation and other constraints or factors.
3. Use of teacher and other professional staff to make qualitative judgments in a rank ordering of alternatives or by nominal group techniques.
4. Use of review of literature, information clearinghouses, and visitation of other districts in searching for alternatives.
5. Use of consultants to assist in identifying and assessing the alternative solutions.
6. Use of cost-effectiveness to choose from among feasible alternatives. One can either reduce dollar costs subject to some goals and objectives or one can

increase some physical measure of output subject to a budget constraint.

7. Pilot testing and field testing of possible alternatives.

## IMPLEMENTATION

At this point the selected program is developed into a plan of operation and carried out by the administrative mechanism. The people who planned the program need not be included in its implementation, but the program design should provide for feedback to the implementors to give an on-going measure of how well the program is meeting the goals and objectives. The major steps which should be included in an implementation plan are:

1. Reassess the problem and solution.
2. Outline the major activities.
3. Consider all the groups and agencies which will be affected by the program.
4. Identify remaining constraints.
5. Identify all the functions and tasks and the persons who will be responsible for carrying out each of them.
6. Plot the calendar assignments. Include target dates. A PERT diagram or other easily understandable chart is helpful and clarifies areas of responsibility.
7. Provide for on-going monitoring.

## EVALUATION

Evaluation is the process of determining how well the goals and objectives of the programs planned have been, or are being, attained. Both summative evaluation, in which the conditions which eixst at the close of the project period are assessed, and formative evaluation, which provides for periodic checks which ask, "How well is it working?" should be completed. The information provided through the formative checks is necessary for on-going revisions of the plan (feedback) which can become the difference between success and failure. The tools of evaluation can include achievement and aptitude tests, attitude scales, performance tests, criterion reference tests, rating scales, reports, surveys, recordings, video tapes and personalized techniques such as interview and observations.

## FEEDBACK/RECYCLE

Planning to be effective must be conducted as a continuing, on-going process. Goals should be re-assessed approximately every five to seven years, implementation must be monitored continuously, and evaluation activities must be conducted regularly. In a changing society, goals, needs and programs must be continually redefined to reflect new conditions and new priorities. Thus, in subsequent years the process should be repeated although it may be necessary that a simplified version or even only a sub-component of the entire process may have to be completed. The feedback information will provide the basis for this decision. The important issue is that feedback should occur at all levels of the planning process and that the evaluation data gathered should provide a basis for modifying and/or recycling into any of the steps of the process in order to improve the attainment of the goals.

## BASIC CONSIDERATIONS

Additionally, some basic considerations which must underlie good planning models are as follows:

1. Effective implementation is a function of the individuals involved; thus, the effecting of human behavior through in-service and staff development becomes a critical element. The prime source of ideas, analysis of alternatives, and much of the decision-making must come through participation.
2. A clear delineation and awareness of environmental constraints and conditions (people, institutional, and political) is required.
3. Clear delineation of subject matter, role and functions of the planning unit, and form of plan is required.
4. Timing is critical and relative to the budget cycle, in-service, involvement of staff, field testing and implementation.
5. Consideration of the adage, "vital few vs. trivial many," needs to be looked at in terms of value judgment, content, cost, staff and decision-making, personnel, learner and community involvement, process and implementation.
6. Clarification of planning and decision-making role and involvement of key-decision makers in the planning process is required.
7. Sufficient resources need to be available for implementation of recommended program changes.
8. Implementation must be concurrent with planning.
9. Differentiation between immediate, near-future, and long-range planning must be made.
10. Differentiation between strategic, tactical, and operational phases of plannng must be made.

The consideration of these overall concerns by administrators will enhance the success of the process.

## SUMMARY

In summary, an overview of the rationale for planning key concepts, references, the planning process, and some basic considerations have been presented. The paper is intended only as an introduction to alternative solutions in decision-making. Because of the complex social problems which schools are facing as the increasingly diverse clientele - student, parent and community, decreasing enrollments, and inflationary costs there is a need for educators to employ a more rational, systematic means of decision-making. Systematic planning such as that described in this paper provides one such tool for approaching some of the problems which the schools are facing today.

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## Chapter 4

## SERVICES AND PROGRAMS FOR CHILDREN - THE DILEMMA

There is little doubt that as the number of students who attend school declines, pressure will be applied to reduce expenditures. The schools are obviously caught in this web of declining enrollments and resources and the questions are "Where to turn?" and "What to do?" about rising costs. Common sense dictates that "frills" must go and "the basics" must remain. A simple concept, but a difficult decision when one has to define "frills" and "basics" and distinguish between these programatic extremes, for the simple fact is that one person's poison is another person's cure. The teaching of art is possibly identified as a "frill" except to the parents with children who have an artistic bent but think that basketball is a frill. The point is obvious, but it complicates the job of a board of education, and places board members in a "no win" situation.

### WHERE TO START, WHAT TO DO?

Planning for reductions in the program and services to students should begin as early as possible. Enrollment trends indicate that secondary schools will be declining in enrollment between the present time and 1985.[1] The elementary schools have, according to national population data, already experienced significant declines and have relatively stable populations for the next twenty years. Therefore, if school districts have made reductions in services and programs in the elementary schools, the focus can now shift to the programs and services of the secondary schools. School district personnel know what the enrollment will be, in most cases, for the secondary schools are based upon elementary enrollments. While there are districts which have in-migration and out-migration as additional factors affecting their enrollments, data are available to predict what enrollments will be.[2]

Because fewer students will be attending the schools, particularly the secondary schools, and there will continue to be pressure to make relative reductions (because of inflation actual dollar reductions may not be possible) in expenditures, what factors need to be considered before decisions are made about reductions in program or services to students? In this chapter consideration will be given to:

1) concepts relative to the curriculum,
2) approaches to reductions in programs, and
3) investigating strategies for making program reductions.

The terms **curriculum** and **program** will be used as synonyms and used to describe the planned learning experiences of the school. The activity programs, including athletics, are considered part of the curriculum. The term **services** will be used to describe non-academic programs such as school lunch programs, bus service, school crossing guards, patrol-persons and so on.

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[1]Edgar A. Kelley, ed., **Reduction in Force: Policies, Practices, and Implications for Education**, (Lincoln, Nebraska: Division of Continuing Studies, University of Nebraska, 1978), 7-16.
[2]Ibid.

## NATURE OF THE CURRICULUM

Many school districts have developed and continued to revise curriculum goals for their schools. For these districts the processes which they have used to determine priorities will give direction for making decisions regarding the allocation of resources. For other districts who have not systematically determined needs and goals, the process is more difficult. Any one of a number of curriculum development models could be used. Most contemporary models include the development of a philosophy for the schools and the generation of goal statements. Goal statements are usually couched in terms of what students can **do, know** or **feel** as a result of being involved in the school's curriculum. Many authorities on curriculum development believe that decisions about the program and other services to students should be based upon the basic curriculum documents which a school possesses. Unless decisions are made on this basis, a district is placed in a position of selecting among alternatives while pressures of the moment influence decisions unduly.

Have the purposes for providing public education changed radically in recent years? Of course, that question could be argued **ad infinitum.** Clearly our society has gone through drastic changes in recent years. There is evidence that, as Alvin Toeffler proposed, our society is in future shock (the premature arrival of the future). The role of the United States in the world as a military and economic leader has changed dramatically in recent years. While changes in our social mores may or may not be as marked as some social scientists would have us believe, the social and moral values of our society have indeed changed in the past twenty-five years. Have schools and their programs kept pace? Should the schools try to keep pace? These and similarly difficult questions will have to be answered as schools develop or redevelop philosophies and goals.

As communities discuss curriculum issues at PTA, faculty, and board of education meetings, controversies have developed over surface issues, such as: alternative schools, process approaches to teaching, back to the basics, studying attitudes and values, and a multitude of other issues. Differences of opinions on these issues are rooted in values underlying each side of the controversy. These values represent philosopies which people hold relative to the purpose of the schools in our society.

To simplify the multitude of values found in discussion of curriculum issues, a classification scheme developed by Eisner and Vallance is helpful.[3]

The categories of this scheme are:

1) Develop cognitive processes;
2) Self-actualization or the curriculum as a consummatory experience;
3) Social reconstruction-relevance; and
4) Academic rationalism.

The perspective of **developing cognitive processes** deals with refining thinking processes of students. Persons who advocate this position identify one of the

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[3]Elliot Eisner and Elizabeth Vallance, eds., **Conflicting Conceptions of the Curriculum** (Berkeley, California: McCutchan Publishing Corp., 1974), 1-18.

purposes of the school to develop the cognitive processes which could be used to learn anything. A typical goal statement would be: students will develop the ability to think critically.

**Self-actualization** emphasizes the need for personal integration of the curriculum by individual learners. The perspective is child-centered. There is great concern over the content of the curriculum and education is valued as a liberating force for individuals. Basis for this approach can be found in humanistic psychology. A school would be advocating this approach if self-discovery by students was a goal.

The role of the curriculum and education within the larger context of society is the perspective of the **social reconstruction-relevance** point of view. Providing experiences relative to social reform and future society are fundamental to this curriculum viewpoint. This perspective follows an historic Western tradition, calling on the schools to provide the impetus for social change. Examples of this point of view would include Title I programs and other social action programs.

The last perspective, **academic rationalism**, includes the orientation that the primary function of the school is to provide students with the tools to participate in Western culture. J. Galen Saylor recently wrote, ". . . it must be emphatically stated at this point that the primary, fundamental function is to transmit the culture of the nation to the young."[4] The rationale for this orientation is that while not everything deemed worthy of knowing can be taught, students need to be exposed to the most significant products of human achievement. These achievements are found primarily in the formal disciplines of study.

The programs which exist in schools do not contain pure examples of the orientations described. The orientations are of value as they assist in describing the myriad of philosophies and influences which shape curriculum and program offerings. Likewise, the orientations which dominate a school environment will greatly influence decisions regarding program creation, continuation and reduction.

What purposes should the schools serve? Which of the particular orientations should have priority? Can schools produce the types of learning represented by the orientations and, if so, at what cost? Given the limited resources school districts possess, what purposes should schools seek to serve? These and numerous other questions can be answered at the local level as boards of education and their communities contemplate alternatives for maintaining quality educational programs.

## APPROACHES TO REDUCTION AND IMPLICATIONS

Instructional patterns in general and in secondary schools in particular are organized around the subject matter disciplines. Actions by administrators and boards of education will undoubtedly deal with the subject matter departments as one "unit of analysis" or budget item. Other units of analysis may include: portions of the activities program, specific services to students (busing, lunch, etc.), and in-service or staff development. As boards of education review present curricular programs in the disciplines, several general approaches might be used. These approaches and possible implications are outlined below:

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[4]J. Galen Saylor, "Reform in the Secondary Education: The Continuing Efforts to Reform Secondary Education, and a Modest Proposal," **Curriculum Bulletin**, XXXII (May, 1978), 17.

Approach #1. Not all Disciplines are Equal: Amputate Selected Programs. A school district following this approach may decide that the fine arts and the music programs were unnecessary parts of the curriculum and should be deleted. The problem with this approach is that for particular students, these programs are the most important in the curriculum. The fine arts and music are particularly vulnerable because they are typically more expensive, on a per-student enrolled basis, than the verbal disciplines such as English and social science and have not typically been required courses.

Approach #2. All of the Disciplines are Equal: Trim Each Program. As the current programs are reviewed, boards of education may, for a variety of reasons, decide not to make cuts in entire programs but to reduce the offerings in each of the programs or departments. This could mean that low enrollment classes, such as advanced mathematics and advanced foreign languages, would be cut. It could also involve reducing the number of elective courses in departments such as English and the social sciences. Reducing electives seems less detrimental to the curriculum than eliminating advanced courses because the content from the electives could be combined in the remaining courses.

Approach #3. All the Disciplines are Equal But Should Not Cost the Same: Allocate Resources Based on Unique Needs of a Program. Educators know that programs cost widely varying amounts of money. Decisions regarding class size and materials need not be uniform for each department in a school district. The decisions should be based on the objectives of the program and what is known from research in teaching a particular subject. A significant compilation of studies of class size has been completed by Glass.[5] He concluded that class size is a significant variable in student learning. Achievement differences in students became highly significant as the ratio of teacher to student approached 1 to 1. Of course, tutors cannot be hired for each student. It is possible, though, to make the teacher/student ratios variable depending upon the subject being taught, the course objectives, and the nature of the student population. To insist dogmatically on a minimum number of students per teacher is not defensible economically or educationally without considering other variables. This may prove to be a very promising option, relative to reducing instructional costs, as more is learned about the relationships of class size to mastering specific learning tasks in a variety of disciplines. More research is needed on the variable of teacher/student ratio to learning.

Approach #4. The Formal Disciplines Are Not Necessarily Separate: Combining Programs. An innovation of the past, core curriculum or interdisciplinary studies, focused on combining disciplines to assist students in integrating learning from each discipline. These programs are still in existence, particularly in middle and junior high schools. Subjects which are most frequently combined are English and social studies, as well as science and mathematics. This approach, if carried out systematically, could be a positive one through providing an integrated approach for students and more efficiency in the personnel budget for some schools. Such an approach could be a real dollar saver for the small junior high school.

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[5]"Newsfront," **Phi Delta Kappan**, LX (February, 1979), 411.

These four approaches are based upon a perspective of the nature of the subject disciplines and, therefore, seem most logical for the secondary schools. The curriculum perspective in elementary schools is centered more on the child than the discipline, as evidenced by the types of programs which elementary schools have adopted. The thoughts on differentiating class size (approach #3) seem to fit elementary schools even though implementation would be vastly different.

## WHAT TO REDUCE, PROGRAM OR SERVICES?

As boards of education make decisions on budgets, they may find it necessary to decide between retaining portions of the instructional and activity programs and services such as the lunch program and bus transportation for students. While contemplating these alternatives, the established philosophy and goal statements can be used to help make decisions. Of course, the amount of confidence or belief which communities hold in the formal statements will largely determine the degree to which this is possible. As these discussions are held, boards would be wise to involve the community in formal information-giving and receiving activities. Extensive community involvement requires that the meetings be widely publicized and that persons who have strong interests or would be adversely affected would be invited to attend.

## SPECIFIC SUGGESTIONS

Since economies in school operation need to be made, some hard choices are in order. The general rule of thumb should be—maintain quality throughout by demanding measurable quality production in everything within the school system. Specifically, the items listed below might be considered at "the moment of truth" after a board of education and the professional staff have formulated a set of objectives, have agreed upon the concept of quality throughout, and focus upon specific ways to curtail expenditures. Some items to consider are:

1. **Class size** can be raised to the vicinity of 23 students per classroom at the elementary school level. Class size over 23 may present a different setting not compatible with goals previously stated. (See the comments on class size in an earlier part of this chapter.)
2. **Commercially prepared instructional materials**—games, bulletin board displays, puzzles, etc. for all age levels represent a significant school expenditure. Teachers can produce many of these same materials which fit their particular needs, even more effectively than commercial materials if they are given the time and other resources to do so.
3. **In-service budgets can be reduced.** Tying in-service programs to specifically identified problems or curriculum changes may provide savings to a district. This may mean that the in-service portion of the budget will have to be planned in detail one year in advance of the actual activities and that districts would not schedule programs unless a need had been identified.
4. **Employ administrators** at all levels who have **expertise** in **two major areas:** (1) **administration** and (2) **curriculum.** The administrator, whether the superintendent or principal, elementary or secondary, must be a leader in curriculum. These people should help plan and conduct in-service programs

and be responsible for program evaluation and revision. If people with these areas of expertise can be employed, the number of assistants and program coordinators can be reduced.

5. During the probationary period, improved **evaluation** should be made of teachers' and administrators' capabilities to fulfill their responsibilities. A day's work—well performed—is still in fashion.
6. A larger expenditure of funds for a **superior** teacher or administrator may pay dividends in the long run. A "bargain teacher" or administrator may turn out to be like the "bargain auto" - worthless.

## SUMMARY

In this chapter the issues of reducing the program and services to students have been explored. Planning for anticipated reductions should begin as early as possible, and large numbers of persons from the community should be involved in the deliberations. Further, decisions about reductions should be based upon existing or newly established statements of school purpose or philosophy and the established goals of the school. The chapter described four curriculum perspectives and built a set of approaches for making reductions. Finally, the chapter provides specific recommendations for making reductions.

## Chapter 5

## THE PLACE AND VALUE OF SCHOOL ACTIVITIES

The total curriculum, particularly as seen in the secondary school, can be divided into five categories.

1. Required courses and mandated programs.
2. Elective courses offered in the daily class schedule.
3. School activities, often referred to as "extracurricular" or "co-curricular" activities. School activities generally encompass the performing activities, i.e. athletics, forensic, music and drama; student participation in quasi-government organization; clubs; publications; honorary organizations; school and community service activities; organizations which foster school spirit; social activities; and various others depending upon the size and location of the school.
4. Student affairs, guidance and counseling, and the management of student rights and responsibilities, i.e. right to privacy, right to freedom of expression, and due process.
5. Student services which generally involve transportation, food services and health services, frequently known as auxiliary services.

All five of these areas in consort constitute the curriculum for which the school is responsible. However, the school is only one of several institutions in our society which is responsible for educating children and youth. The home, in spite of changes in family patterns, remains the most significant influence. Culture, or society in general, with all its complexity, which includes mass media, is the second most important influence which educates children and youth. Peer pressure is considered the third major force. As children move from elementary schools to secondary schools the influence of peer pressure increases to a point where it may be, for a time, the dominant influence. The formal institution of education is the other major factor helping to shape children and youth. As a fourth institution educating children and youth in our culture, schools cannot be expected to cure all ills - nor can they expect all the credit for educating a generation.

### THE PLACE OF SCHOOL ACTIVITIES

Over the years schools have offered many forms of learning experiences as required, mandated, and elective courses and programs, student activities, various forms of students affairs, and auxiliary services. Student activities have been a vital part of the school's operation. In times of ample resources, activities of many different kinds were offered and supported by different groups. Athletics had its fans, music programs had their followers, and other activities had their own groups of supporters. When there were sufficient resources for all or most activities to achieve their purposes, there was little discord among the supporters of the various activities. Because there was little or no need to establish priorities or to have student activities set goals which could be readily identified as contributing to the education of youth, student activities were often accepted for their

intrinsic worth, for the value system they represented, or for some other intangible reason. But in an era of declining resources, the different values and philosophies of the suporters of various student activities must be recognized. If each student activity is allowed to flourish, there is little or no disharmony between the supporters of those activities. Circumstances change considerably when priorities and goals have to be set which threaten or weaken an activity or program long cherished by loyal supporters. One's philosophical orientation, or the value a person places upon art, debate, the annual staff, music, and inter-scholastic sports competition, has a definite bearing upon setting priorities.

School activities, as a part of the total curriculum, have attracted considerable attention and will continue to do so in the face of declining resources. Educators will need to provide judgment and informed leadership to boards of education, staff members, and community representatives with respect to school activities. School activities, especially with the advent of expanding programs for girls, have been on a "run-away, collision course" in some communities. School activities must be kept in balance with the total curriculum; they must operate within reasonable financial limitations and demonstrate cost effectiveness; they should be organized to avoid infringement on academic areas; they must be geared to the developmental levels of the youth they are to serve; they must have adequate staff, time, and facilities; and above all, each activity offered in the school must demonstrate that a contribution to the growth and development of youth is being made.

## THE VALUE OF SCHOOL ACTIVITIES

If the philosophy that only those activities which can demonstrate a positive contribution to the development and growth of youth is to be accepted by the school, the determination of the value of activities is an undertaking that, while not easily achieved, must be considered. Many reasons can be identified which point to the complexity of evaluating activities. For one thing, not all activities produce the same benefits or results. One might ask: "Does participation in a school play have the same educational value as participation in a science club?" The influence of the advisor or sponsor is an important variable. Students respond differently to significant others, and the variable represented by the staff member involved with the activity has a potential influence regarding the value of the activity. Time is still another variable that has an influence on the value of participating in a given activity. The success or failure variable may also be a factor to be considered in evaluating selected activities. Research methodology and the type of research that has been conducted, particularly in the field of athletics, have reflected some rather severe limitations and generally succumbed to many of the problems surrounding the control of variables. In light of limited and inconclusive research the question about how much value a young person can derive from participating in school activities is difficult to answer.

While research reports are not able to provide conclusive evidence about the value of participating in activities, observers and advocates of activities cannot expect any given research report to ferret out all the variables and to present findings that can be generalized to the activity program. The tendency to expect research results to indicate that participation in activities had made sweeping

changes in youth which are totally attributable to participation in activities is out of the realm of possibility. Activities are only a part of the total life and growth experience of the adolescent. Because participation in an activity is a small part of an individual's pattern of experiences, a research report that attempts to isolate one or two variables cannot be expected to provide conclusive proof that participation has or has not changed students or affected their lives.

Numerous opinions have been set forth regarding the value of participation in school activities. It is commonly found that individuals "believe" that participation in activities is beneficial. The anticipated benefits from participation in activities can also be rationalized on a theoretical base. Therefore, many programs are sustained because individuals believe those programs will be of benefit to the participants. The theory or belief that participation can be of value transcends the rationalization that can occur when a sponsor uses an activity and encourages student participation for the self-edification that can come from sponsorship. Logic, buttressed with public opinion, has provided a justification for the inclusion of school activities as a part of the total curriculum.

Various efforts have been made to determine the effect of participating in interscholastic sports. The results of research in this area are not conclusive and reference can be made to studies that point to positive findings; conversely, some studies are not complimentary or supportive of athletics. VanderZwaag proposed there was very little scientific data that either refute or support the contention that sports build character or change attitudes.[1] Aldermann advanced the idea that very little "hard" evidence existed which supported the claim that participation in competitive sports influenced and modified personality structure.[2] Followup studies in the United States Military Academy suggested that athletes demonstrated greater persistence, however, than did non-athletes.[3] In another study Schendel reported that ninth and twelfth grade athletes generally possessed desirable personal-social psychological characteristics to a greater extent than non-participants in athletics from the same grade levels.[4]

The research favoring participation in athletics was supported by a study that reported high school athletes possessed personality characteristics and value systems which were significantly different from those who were non-participants.[5] Such findings, however, only point to relationships and do not demonstrate cause and effect.

The Utah State Board of Education commissioned a group of citizens and educators to study the entire spectrum of school activities in their state. The Utah study was comprehensive in nature and resulted in numerous recommendations which may have applicability for states other than Utah. One recommendation that underscores the essence of many points covered in the report stated:

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[1]Haroid J. VanderZwaag, **Toward a Philosophy of Sport**, (Reading, Mass.: Addison-Wesley, 1974), 186.

[2]R. B. Aldermann, **Psychological Behavior in Sport**, (Philadelphia: W. B. Saunders, 1974), 138.

[3]Alfred C. Werner and Edward Gottheil, "Personality Development and Participation in College Athletes," **Research Quarterly**, XXXVII (1966), 127.

[4]Jack Schendel, "Psychology Differences Between Athletes and Non-participants in Athletics at Three Educational Levels," **Research Quarterly**, XXXVI (1965), 52.

[5]Richard A. Davidson, "A Study of Personality Traits and Value Systems of High School Athletes and Nonathletes," (Unpublished doctoral dissertation, University of Kentucky, 1967).

> This study has made it dramatically clear that most students, parents, teachers and administrators consider that the student activity program possesses significant educational value for its participants. It is recommended, therefore, that (1) the student activity program be recognized as a valuable and legitimate part of the total school program, (2) that the mentality and practices that designate the student activity program as "extracurricular" be eliminated, . . . student activities because of their educational value, ought to become an integral part of the total school experience and that a sensible and responsible mixture of academic studies and student activities should characterize each student's individual program of studies . . .[6]

One of the sets of findings in the Utah report that contributed to the above-mentioned recommendations stated that students who were participants and heavily involved in school activities scored about the same or slightly worse than other students. However, those who were involved in school activities were more self-assured in social situations, were better adjusted as reflected in peer relationships, and were more effective in leadership situations. Students involved in activities reportedly enjoyed school more than did non-participants.[7]

In a national survey of parents Gallup found 45 percent who viewed activities as very important and 40 percent who saw them as fairly important. There were only 15 percent who viewed school activities as not being of importance or gave no opinion on the matter.[8] Perhaps the most supportive evidence was recently reported by Jennings and Nathan with reference to two independent studies in which parallel findings supporting school activities were cited.[9] The American College Testing Service completed a study which compared the value of four factors in predicting success. Success was defined as self-satisfaction and participation in a variety of community activities two years after college. The factors that were examined were: (1) major achievement in what most high schools call "extracurricular" activities, (2) high grades in high school, (3) high grades in college, and (4) high scores on ACT. The only factor of the four examined which could be used to predict success in later life was achievement in extracurricular activities. The College Entrance Examination Board's Scholastic Aptitude Test was, because of similar interests, examined for its accuracy in predicting how successful a person might be at a chosen career and success upon graduating from college. In this study it was reported that SAT's offered little evidence or gave any clear indication regarding capacity for significant intellectual or creative contributions in adult life. In other words, there was no correlation between high scores on the SAT and later success in life. The study revealed, however, the best predictor of creativity in mature life was a person's participation during adolescence in independent self-

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[6]**A Study of Student Activities in Utah High Schools**, (Utah State Board of Education, 1978), p. 7.
[7]Ibid.
[8]George H. Gallup, "The 10th Annual Gallup Poll of the Public's Attitudes Toward the Public Schools", **Phi Delta Kappan**, LIX (September, 1978), 40.
[9]Wayne Jennings and Joe Nathan, "Startling Disturbing Research on School Program Effectiveness", **Phi Delta Kappan**, LVIII (March, 1977), 589.

sustained ventures such as hobbies, work experience, and participation in extra-curricular activities.

Research does not give the final answer with respect to the value of school activities. The value of student affairs, like school activities, can be based on assumptions and judgments of citizens and educators. This poignantly focuses upon the need for research in such areas. Until more data are gathered upon which sounder decisions can be made, educators who are responsible for providing leadership in the areas of school activities and student affairs must use the soundest possible means of developing and managing programs. Community involvement must be sought and on-going programs of assessment need to be conducted. The school activities and student affairs house must be put in order and then, as more data are available, adjustments made as indicated. School activities can make a difference in the growth and development of youth, and student affairs can make an important contribution to the educational process. To obtain maximum educational benefits, sound judgment is called for, and excesses and abuses must be avoided. Only when programs are conducted by well qualified staff, aiming at clearly set goals, maintained in a balanced perspective and constantly evaluated, will they achieve their greatest potential for the benefit of youth.

## Chapter 6

## TECHNIQUES FOR REDUCING COSTS THROUGH SCHOOL BUDGET REVIEW

Local newspapers recently carried a news item about the price for Hershey chocolate bars increasing from five cents to twenty-five cents since 1969. Many things haven't changed as drastically in cost as the candy bar, but certainly we all could tell "horror stories" about inflated prices that affect our daily lives. Public schools have not escaped the ravages of inflation. There is no reasonable expectation that they should. School districts' budgets are typically 80-85 percent salary based and employees must exist with the inflated costs of their needs. In June of 1978 the consumer price index was up 78 percent over the same date in 1969. At the present rate of inflation it will soon take $2.00 to purchase $1.00 worth of 1969 goods and services.

Inflation hasn't been the only force to cause increased expenditures for public schools in the past decade. New and expanded programs have been added. It would take more time for research than the writer can invest now to provide an exact listing of program/service changes. A partial listing includes the growth in public transportation, some of which was court ordered and some locally initiated; new programs for handicapped students; growth in activities for females due to Title IX provisions; increases in social security taxes; and unemployment insurance provisions. These new and costly programs also have indirect costs in the form of personnel to process the paperwork involved in program administration, protection from the threat of legal action, and provisions for adequate facilities, equipment, or materials.

Action was taken in the special summer session of the 1978 Nebraska Unicameral to limit local property tax increases. A school district's ad valorem tax increase was limited to 7 percent of the preceding year's levy or to the average of the percent of change of each of the previous three years. The law permits adjustments in the tax ceiling when enrollment increases in excess of one-half percent or by a vote of the people. The November general elections contained items that reflected the concern of taxpayers across the nation. Nebraska's ballots contained their share of proposals for limitations on the autonomy of local governing boards.

Nebraskans gave local school boards and administrators a vote of confidence in the November elections but the debates surrounding the issues and the narrow vote spread indicated the public's concern. School officials will need to increase their efforts to involve the general public in setting their district's purposes and goals. The decision-making process will increasingly need to involve citizens other than school board members. It can be expected that affirmative action on the part of the school officials will be needed to involve some segments of the community to prevent vocal special interest groups from distorting the broader collective judgment of the public.

### BUDGETS AND EXPENDITURES

Budgets are authorized plans for revenues and expenditures. They contain both known and estimated values. Actual expenditures may not legally exceed the

authorized expenditures for each fund without public notification. Budgets place controls on expenditures by school district officials during a fiscal year, as from September 1 through August 31.

Information gathering and planning to form new budgets take place continuously. Budget proposals in Nebraska are categorized onto an 18-page standardized form which contains extensive line item identification of revenue sources and expenditure objects. The budget document also contains a section for publication. The section shows brief summaries by funds of expenses for the past and current years and the ensuing year requirements. The section for publication also shows the "cash on hand" amount, "cash reserve needs," and the estimated property tax requirement. On the basis of the published summary the general public is invited to a public hearing before the school board acts to adopt the budget. The typical taxpayer is not involved in developing the budget, does not understand it, and probably reacts only to the bottom line figure which controls the tax bill. This must change.

While it isn't practical to expect all people to understand and take time to participate in budget development, there are ways to communicate with and involve those who are interested. Each community should develop its own communication system with its taxpayers, however, there will be certain common elements. Some suggestions include the use of a highly publicized budget development calendar to encourage participation in stages of the budget proposal rather than waiting for reaction to the final product. An open membership citizens' committee encouraged to understand the budget, express views on proposals, and carry the information out to the general public would do much to make the final plan acceptable. The budget would then belong to and be a product of the people rather than being viewed as the "board's" budget.

School-community relations should not be stereotyped because school districts have different problems, personalities, and mediums of communication. It seems clear, however, that public relations is an area that now requires greater effort on the part of school district officials.

## REDUCING EXPENDITURES AND TAXES

Regardless of the system used to construct and manage budgets, taxpayers want expenditures and taxes reduced to a minimum. A general assumption of this presentation is that taxpayers want a good school system but are asking to "cut fat" and operate the schools as economically and efficiently as possible.

If school administrators and board members wish to involve the community in budget analysis for purposes of economy, then a systematic analytical plan should be adopted. Willy-nilly impulse cuts of programs, staff, or line items are foolish.

All school districts in Nebraska use fund accounting. Taxes are levied for three types of funds, i.e., a debt service fund, a sinking fund, and a general fund. Money for the three funds may not be mixed.

**The bond interest and bond retirement fund.** This fund is used to pay interest and retire bonded debt. The need is based on contracted obligations agreed to by the public in a bond election. There is little if any leeway for modification of this obligation other than to watch for a chance to issue refunding bonds for purposes of a lower interest rate and/or to change the amortization period.

**The sinking fund.** A sinking fund is used to accumulate money for future building needs. School boards in Nebraska in Class III through VI districts may levy up to four mills for this purpose. A separate law for all school districts permits levies up to five mills for this fund if approved by at least 55 percent of the voters. School officials and other citizens might review the management of this fund to determine if the money is being well invested and review plans for its use. Perhaps the funds aren't needed or should be diverted to remodeling instead of new construction. There are legal provisions for transferring surplus funds to the general fund if the purposes for which it was gathered have been met or are no longer valid. Another suggestion that is being planned for legislation in at least one other state is to permit such funds to be used for school bus purchases and major repairs to buildings.

**The general fund.** The annual operating budget, or the general fund, finances the basic educational service rendered by the school district. It supports the operation and maintenance of the schools. Both the state standardized budget form and the end of fiscal year financial report show receipts by their source and expenditures by specific functions.

The line item construct of a fund serves as a guide for anticipating receipts and planning for expenditures. In 1977-78 all school districts adopted a type of program accounting which classifies groups of expenditures according to their functions such as instructional program, support services, executive administrative, etc. A copy of the Annual Financial Report (AFR) form is contained in the appendix to support the above description. The annual financial report is in the same format for reporting receipts and expenditures as the budget form. The budget form is more lengthy since it provides for past and current year data as well as the new budget. Budgets are filed by September 1 each year with the county levying board and the state auditor. Finance reports for the previous school year are filed in November with the state department of education and the county superintendent by the local district. An annual fiscal audit of school district receipts and expenditures is required of all Class II through VI schools and is to be filed with the Nebraska State Department of Education by November 15. These reports are public records and as such are available to any interested party.

Since the general fund is the controlling document for the on-going operation of the school system, it is the most complex of the funds and a most reasonable focus for scrutiny. The quality and quantity of the education program is financially based in this fund. Line items and function accounts may exceed budget allotments within the fund but the total fund expenditures may not exceed the total amount budgeted without further public notice.

Action to reduce or to make better use of expenditures in the general fund should involve a systematic analysis, similar to these steps:

1. Review the budget for excessive padding. Large contingencies may be acceptable when they can be afforded. They are margins against unexpected expenses. The amount of the margin is somewhat dependent on management philosophy. Check annual budget balances for recent years to see if they are greater than they used to be. Also, review purchase orders issued during the last two or three months of a fiscal year. There may be a tendency to do some non-essential buying if it becomes obvious late in the year that there are

substantial budget balances. Finally, understand and question the operating balance. The operating balance is cash-on-hand at the close of the fiscal year. It isn't necessarily excess money, but is intended to be the reserve amount needed to continue meeting obligations until additional revenue is received. One way to check on the operating balance needed is to review the lowest cash position of the district during several preceding years. If the lowest cash level reached is still a substantial margin, then the operating balance might be reduced.

The above actions are considered one-shot gains. Properly executed, a district's budget would be lean and trim for purposes of the existing organization and program.

2. Check for economies in the present program: non-personnel. A long checklist of items could be developed in this area. The following items are suggested as a partial listing for review and should bring others to mind.
   a. Does the district ask for competitive bids on supply and maintenance items? Buying locally or out of habit from the same suppliers may be costing too high a price. Check it out.
   b. Is your district taking advantage of large quantity buying? This may involve cooperative buying with other school districts or through an Educational Service Unit (intermediate agency). Warehousing and providing for decentralized storage space are also cost items that must be taken into account when contemplating a program for bulk purchasing. Think it through carefully.
   c. Are heating and ventilating properly controlled? Properly working automatic controls are probably best but some in-service training of staff members should pay off in any instance. Some easily collected data about the best time to start heating buildings in the morning and when to start the closing down cycle in the evening might result in sizeable fuel bill reductions. Insulated drapes or window shades can reduce heat loss and provide for economy in areas where loss of natural light is not a factor. A complete energy audit would provide an ideal data base for energy planning.
   d. How sophisticated is your risk management (insurance program)? Premiums may be reduced by higher deductibles, self or no insurance in some areas, competitive bidding by insurance companies, package-insurance programs, etc. Warning—this is a technical area but if the insurance program hasn't been reviewed for several years, it is a good bet that some premium money can be saved. Premiums are guaranteed "losses." Risk management involves judgment about the chance of a loss occurring, the ability of the district to absorb such a loss, and a decision about the level of insurance to carry.
   e. Could your district be just as effective and use less electric power? Suggestions include in-service programs and equipment for the use of natural light, optimum lighting for work areas, staff and student involvement in reducing kilowatt-hour consumption (post amounts used periodically), replacement of incandescent bulbs with more efficient types of lighting,

and the use of more light reflective paints or materials for walls, ceilings, and other appropriate furnishings. Does the staff know the guidelines when to turn off lights for maximum economy?

f. Maintenance and repair operations for a school plant can have a significant impact on budget needs. Poorly sealed windows and doors obviously contribute to heat losses. A program of preventive maintenance can avoid expensive losses due to roof leaks, equipment breakdowns, and the general deterioration of the school plant. A systematic plan should be in existence to protect the investment in the school plant.

   Officials should review the possibility of contracting for certain types of services instead of using regular employees. In some regions it may be cheaper to contract for school grounds care, periodic floor refinishing, certain custodial services, electrical, plumbing, painting, and carpentry services, etc. The pros and cons of contracting vs. using regular employees are many. The correct solution will vary by school district and service.

g. How is your accounting for costs when school facilities are used for programs serving other than the normal student body? Although it may be highly desirable to use the school plant for adult programs, community education programs, service and social organization activities, etc., the regular school program should not be assigned their costs. A review of "use" rates and policy for other than regular school programs may produce a more accurate accounting of the true costs of the public school program.

h. Is the transportation system operating at peak efficiency? Normally it is more economical for the district to own its own equipment. Research indicates that districts operating 12-15 buses or more can normally save money by providing their own maintenance and service facilities. Questions to ask include: (1) Could rerouting and bigger buses be more economical? (2) Can buses be used for double runs with some staggering of school starting and closing times? (3) Is it more economical to provide buses or pay parents to transport some students? (4) Should the school district own or lease an automobile for trips by staff members rather than paying mileage? (5) What are the economic possibilities of using students, teachers, or custodians to drive buses?

   In some districts transportation costs may take as much as 10 percent of the general fund budget. It is easy to fall into a pattern of operation that if reviewed could yield substantial savings.

3. Check for economies in the present program: personnel. Although the percentage increase of costs for supplies, materials, and utilities have far exceeded those for salaries, still approximately 80-85 percent of a school district's budget is for staff payroll. In the previous sections possibilities for economies were reviewed that avoided direct consideration of staff reductions. Aside from the negative human relations aspect of dismissing or not hiring people who need a job there is a very real impact on local economy. It is one thing to view a reduction in force as a saving to tax payers but yet another to consider that employees are consumers who patronize local

establishments and who probably return 90 to 100 percent of their tax dollar salaries to the private sector in short order. Obviously, if a person's services are not needed, then the position should be abolished, but to choose deliberately to accept less or lower quality service or program as a means of reducing budgets is a major decision to be considered in terms of its side effects as well as the more direct objective.

**Non-certified or classified personnel.** Nationwide classified personnel comprise about one-third of school district employees. This ratio is based on a "head count" rather than a "full-time-equivalent" basis but does give a perspective to staffing that may surprise many lay people. Classified personnel play a service role to the central purpose of instruction in the school system. They include such categories as custodians, bus drivers, secretaries, clerks, lunchroom employees, maintenance staff, and teacher aides.

Any analysis with a view toward finding economies through classified personnel should start with district officials reviewing local values and attitudes about the quality and extent of services expected for that school. It doesn't make sense to reduce custodial services if the district is already being criticized for dirty or unkempt buildings.

Assuming for the moment that all service programs are to be retained but personnel needs are subject to review, then a logical next step would be to develop or review existing job descriptions. Updating job descriptions may reveal ways to consolidate certain functions identifying points of low efficiency, or to review for quality standards that could be downgraded without dismissing the effectiveness of the program. Examples of changes to reduce the number of classified employees might include the use of volunteer aides to teachers and in lunchrooms; student custodians with adult supervisors; contracts for periodic services such as cleaning, painting, mowing, etc.; restructure custodial service schedules so that classrooms are vacant during the school day; greater use of technology to keep records, make reports, and maintain the business affairs of the district; consolidate bus routes; invest in modern equipment; or demand more of employees.

A final step in searching for economies through reducing the number or quality of classified staff is to consider reductions in service. Again consider community attitudes carefully and let it be known that efforts to economize have been conducted. If the decision is to proceed, then the services to be eliminated or reduced must be selected. Such a choice should review the possible total savings, the number of people affected, the severity of the effect on students and on the instructional programs, and involvement of the public in reaching final acceptance of the proposed program cuts.

**Professional staff.** Faculty members' salaries of both administrative and instructional personnel are the biggest cost factor in a school district's budget. The faculty is also a major determinant of quality in a school system—not the only determinant, but it would be hard to imagine a good instructional program with an inadequate faculty. For this reason it is suggested that decisions resulting in a lowering of faculty quality or quantity be viewed as "last resort" efforts. This is not to say that extreme economies in other areas should be practiced before obviously poor staffing practices relating to faculty are corrected but only to underline the

need to understand the sensitive relationships between students and those responsible for their instruction.

There are a number of questions to be asked and ideas to be pursued relative to a district's staff deployment and utilization.

a. Could pupil-teacher ratios be increased to reduce the number of faculty positions? There are conflicting opinions and research about the effect on learning of changing pupil-teacher ratios. Most people will agree that for a given type of class there is a size limit for most effectiveness but there is much difference of opinion on what the size should be. Probably several other variables enter into a best answer for an ideal class size.

   The potential of savings through increasing pupil-teacher ratios is substantial. Wilkerson[1] developed the following listing based on a $12,000 average salary for teachers:

| Pupil-Teacher Ratio | Per Pupil Salary Cost | Per Pupil Savings of Ratio Increase |
|---|---|---|
| 10/1 | $1,200 | $ — |
| 12/1 | 1,000 | 200 |
| 14/1 | 857 | 143 |
| 16/1 | 750 | 108 |
| 18/1 | 667 | 87 |
| 20/1 | 600 | 67 |
| 22/1 | 545 | 55 |
| 24/1 | 500 | 50 |
| 26/1 | 464 | 38 |
| 28/1 | 429 | 33 |
| 30/1 | 400 | 29 |

The above example shows clearly the higher per-pupil salary costs of smaller classes.

Classrooms may be consolidated under different conditions. Large school systems, particularly those with larger elementary centers, find it easier to consolidate classroom units than do smaller systems. For example, pupil-teacher ratios generally would not fluctuate as drastically when one section is absorbed into three or four classrooms at the same level in a larger school as when two classes must be reduced to one in a small school. Classes may be consolidated by forming multiple grade rooms, by closing marginal attendance centers, by eliminating duplicate classes in secondary schools, and by increasing subject load requirements in the high schools and eliminating study periods. Eliminating teachers as supervisors of study halls makes economic sense.

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[1]William R. Wilkerson, "Professional Staff," **Nebraska Public Finance Study**, ed. C. Cale Hudson (Nebraska State Department of Education, 1978), p. 125.

b. Consider hiring some lower cost teachers. This means less experienced, less formally prepared faculty. Some reasonable mix of youth and experience is normally preferred. Look over your staff's qualifications. Perhaps it has grown more senior than is needed. If so, consider your replacement policies with a view to a more favorable balance of experience and preparation.

   It is not too early to begin considering plans to encourage early retirement of senior employees. Under the new federal restrictions on mandatory retirement age, employees and the district could benefit by retirement incentive packages.

c. Review your organization's instructional support services—consultants, counselors, department heads, supervisors, assistant administrators at all levels, etc. A zero-based budget approach would simply ask, what would happen if this position were not filled? Is the service needed and if so can it be reasonably provided by some other means? If the decision is made to eliminate a position, the action may be immediate or phased out over time depending on the financial pressure.

d. Explore the possibilities of part-time employment with your faculty. It may be surprising how many people would be content to work part days, alternate weeks, or on a semester basis. These people will probably become more helpful in finding ways to consolidate positions or provide only needed services when there is still a role for them than when it means a total job loss. Obviously there are some problems with fringe benefits in part-time employment, but the possibilities for maintaining high staff morale as well as savings on salaries makes this an attractive idea for further inspection.

e. Become well acquainted with the program offerings and possible services of your district's Educational Service Unit. Possibly some of the services being provided by full-time employees of your school district could be obtained more economically from the ESU.

f. Review program needs with a zero-based budget attitude. Identify all expenditures of the district with a program. Set aside the legally mandated programs and assign priorities to those remaining. Presumably these are all desirable programs that have been trimmed to basic economies by actions suggested earlier in this paper. However, financial pressures may demand that some of them be eliminated.

Decision making about which programs to drop or curtail may well have a divisive effect on a community. Almost all programs have their constituencies. Leadership by school district officials is extremely important at this point. Some things school officials could do to reduce opposition to program reductions are suggested below.

1. Have the broad based public involvement suggested in the earlier steps of this paper.
2. When developing program priorities place dollar amounts on each so that single or combinations of programs may be considered as alternate means of reaching a proposed budget reduction. Several low-cost programs with low

*priorities might be preferable to retain as a package over a higher priority* but high cost program.

3. Avoid using, or permitting any appearance of using program cuts as a "club." This can be done through involving the public in the process of costing-out and placing priorities on programs. A solid, clearly stated philosophy about goals and purposes of public schools should be a first step in any planning process. Logic and experience submit that philosophies within and between communities will have much in common and they make a solid base on which program wants can be given priority against their costs.

## OTHER CONSIDERATIONS FOR BUDGET ECONOMIES

Suggestions of this paper have provided for elaboration by local school officials to fit each community's unique circumstances in finding ways to achieve optimum budget economy. The suggestions focused on decisions that could be acted upon locally. The following ideas presented for study would require more broad based co-operative actions by citizens.

1. Work for legislation to have state government pay the district's share of social security taxes (F.I.C.A.). School districts are legally subunits of state government; therefore, employees can be considered state employees. School district budgets and local property tax needs would be substantially reduced if F.I.C.A. payments were made from the state's budget.
2. Consider legislation to have the state government insure school districts in terms of either property or liability or both. Collectively, the insurance premiums paid for school districts far exceed losses and the human resources cost of their suspected inefficient management is high. Five other states recently reported good experiences with school insurance programs. Even the hint of legislative action in this area in the past resulted in the development of package programs by the insurance industry that cut premiums by as much as 50 percent. Time has eroded the advantages of typical school insurance programs purchased by local districts and it may be time for a new look.
3. Consider the use of ESU's or state government as purchasing agents for major cost items. Schools engage in many activities that are only service related to the instructional process. Transportation and lunch programs are prime examples of expensive auxiliary operations. It seems reasonable to ask other agencies to provide certain service functions and costs while permitting schools to concentrate on their central role—education. The state, for instance, could more economically purchase fleets of buses for distribution to area transportation agencies, such as school districts or ESU's, than can each individual school district.
4. A final suggestion, and certainly the least likely to get wide acceptance, is that school district consolidation possibilities be considered. Despite a recent wave of nostalgic publications about "small is better" and claims that consolidations cost more, the fact remains that economies may be found through school district reorganization. Support for this position is found in the research of the Nebraska Public School Finance Study report which is available from the State Department of Education. The variables in a

proposed consolidation of districts may be many. It is not the purpose of this paper to go very deep into the subject, but it would be well to puncture a few deceptions.

**Claimed:** Research shows that districts spend more money after than before consolidation.

**Reply:** Probably true, since voluntary consolidations generally resulted from mutual needs for new facilities, dissatisfaction with programs that may have been limited by low enrollments, and a tendency to bias reports of such studies by showing only current dollar expenditures which ignored the effect of inflation. The reasons for the consolidation often predetermine future costs.

**Claimed:** Transportation needs increase and this is counter to needs to save energy and money.

**Reply:** It is probably true that in some past consolidations more miles were added to bus routes. Again this depended on the purposes of the consolidation. Often the forces that pushed consolidation involved old school buildings in low enrollments. New buildings typically consolidated two or more attendance centers which might, but not necessarily, extend bus routes. Better planning and elimination of double routes along the mutual boundaries of the pre-consolidated districts might reduce mileage. Another interesting aspect of the energy-cost issue that is rarely if ever researched is the relative cost and energy consumption of any extended transportation routes compared to the cost/energy differences in maintaining two or more plants vs. a single school.

School district reorganizations can result in budget savings when the opportunities provided are used. Realistically, this is comparable to saying that if a person received a $100 per week increase in take-home pay it could all go into savings. Human nature seems to result in higher expectations as abilities and means increase. That isn't all bad, is it?

## SUMMARY

This document had two primary purposes. First, it was written to suggest a systematic approach to reviewing school district budgets for economies. Second, it was meant to be a source of information understandable to people who do not normally work with school district budgets.

In recognition of the need for each community to include its own values in its school system, the suggestions are purposely open-ended and intended to trigger ideas and evoke discussion. It was realized that any attempt to provide a comprehensive listing of alternatives for school district staffing, programs, and services would simply overwhelm potential readers. For some the material is too simple; for others, too complex. Hopefully there is a large middle group which will benefit from the effort.

The appendixes to this text contain material that may prove useful to those involved in the complex problem of public school budgeting.

## Chapter 7

## REDUCTION IN FORCE

Personnel costs consume by far the greatest share of an operating budget. In some cases these costs exceed four-fifths of the annual budget. A decrease in the number of personnel is the most immediate and dramatic way to reduce expenditures. The reduction of expenditures, however, should not be the sole end during a budget crunch. Nor should a reduction in force (RIF) be viewed as the single solution to budgetary problems.

A host of factors govern reduction in force. Primary among them should be the consideration of staffing needs. Staff deployment and utilization assumptions in the manpower planning process need to be considered carefully. Program offerings, local needs, student demands, and other environmental factors also call for prudent attention. State and federal laws and regulations also must be weighed. State statutes, for example, may prescribe curriculum content and personnel procedures. As an example of the latter, the State of Nebraska in 1978 passed a legislative bill (79-1254.05-.08) that covers termination of employees' contracts due to reduction in force. A number of substantive and procedural due processes come to the fore on the subject of employee termination and these legal requirements must be scrupulously followed. The Nebraska law stipulates that "Prior to January 1, 1979, every board of education or governing board of any educational institution . . . shall adopt a reduction in force policy . . . ." The adoption of a board policy or negotiated agreement with an employee union on reduction in force can establish sound bases from which decisions on RIF can be made.

Another publication in this series, **Reduction in Force: Policies, Practices, and Implications for Education**[1] is a study of this topic. The chapter headings are:

I. Reduction in Force: An Introduction
II. School Enrollment Trends in the United States and Nebraska
III. Reduction in Force: A Historical View
IV. Reduction in Force as Viewed by Professional Associations
V. Selected Policies and Procedures Related to Reduction in Force
VI. Considerations in the Development of Reduction in Force Policies
VII. Implications of Reduction in Force for Educational Planning

In the introductory chapter a number of contending forces which must be faced because of declining enrollments were outlined. Among these were: (1) reduction in services to kids, (2) reduction in budgets, (3) conflicting views between educators and citizens about reducing expenditures through increasing class size, (4) pressures for school reorganization, and (5) seniority or performance as the more desirable basis for reduction in force.

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[1]Edgar A. Kelley, ed., **Reduction in Force: Policies, Practices, and Implications for Education**, (Lincoln, Nebraska: Division of Continuing Studies, University of Nebraska, 1978). This publication is available from Conferences and Institutes, Room 205, Nebraska Center for Continuing Education, 33rd and Holdrege Streets, Lincoln, NE 68583.

Enrollment trends presented in Chapter II project probable declines in both the nation and Nebraska. For example, a report from the federal government indicated a decrease of 2.4 million students in grades 9-12 from 1975 to 1985. From now until 1990 the greatest decrease in student enrollments in Nebraska will occur. Other patterns in staffing ratios and staff mobility were discussed.

The third chapter provided explanatory and background material on RIF practices in business and industry. As a result of legislation, court decisions, and practices of various commissions, primarily by the federal government, private enterprise was discouraged, if not prevented, from arbitrary, capricious, and unfair dismissals of employees. Other aspects, as manpower planning, the principle of seniority as a basis for layoff, and outplacement activities were discussed also.

Chapter IV presented the position statements of five national professional organizations on reduction in force. Executives of the American Association of School Administrators, the American Association of School Personnel Administrators, the Association for Supervision and Curriculum Development, the National Association of Elementary School Principals, and the National Association of Secondary School Principals provided up-to-date (as of Spring 1978) statements of their respective associations on RIF.

Chapter V is an extended treatment of board policies and negotiated agreements provided by a national sampling of 246 personnel administrators. Comparisons and contrasts were drawn between existing states, statutes, and board or board/local association statements. Issues regarding bases for layoff by determination of seniority (a complex issue by itself), RIF lists, acceptable reasons for reduction in force, local association rights, the impact of federal funding of categorical grants on staffing, intra-district transfers, notification of non-retention, compliance with affirmative action guidelines, restoration rights, and the like were some of the items discussed. Sample policy statements illustrative of these items were included for reference.

Major questions that need to be addressed in the formulation of a policy on RIF were discussed in Chapter VI. These included basic education policy, cause, determination of seniority, notice, association response, budget considerations, RIF lists, benefits to staff on layoff, restoration rights, recall procedures, and grievance procedures.

The final chapter, VII, focused upon the implications of reduction in force for educational planning. A number of recommendations for planning were included. "Some Closing Comments" provided a final note.

Financial constraints caused by statutory limitations; inflation; continuously rising costs for essential goods, services, and utilities; taxpayers' scrutiny of increased expenditures; federal and state mandated programs which defy reduced expenditures by local districts; a steady, if not rapid, rise in the cost of living; and other uncontrollable economic factors loom ominously at school board members and their administrators. The decline in student enrollment compounds the confusions and raises many questions that educators have rarely had to face. The closing of a school building often transforms the populace of that attendance unit into a militant posture of unexpected power and retributive force. The cry of "save our schools" is often a mask for emotions that run deeper than simply community survival but

express fears of a more primitive nature. After years of finding solutions to problems and situations created by unparalleled growth in student enrollment, and subsequent concerns, educators are now confronted with problems of a reverse nature. At one time school board members and school administrators could count on their staff's support for bond issues, introduction of new programs and similar growth items. Because of a number of factors, the split between management and labor was widened in this decade, and deepened quite noticeably at the beginning of the 1970's. From the same date there has been a decline in student enrollment. One conclusion is obvious: the necessitation of reduction in force will call for administrators' finest efforts. One of the greatest burdens administrators will have to bear is personal stress and trauma brought about by having to make tough management and personnel decisions. Carefully developed board policies, rules, and regulations can establish the framework for programmed decisions and help to alleviate situations that require decisions of a personal nature.

## Chapter 8

## THE FUTURE OF SPECIAL EDUCATION: THE DILEMMA

Educational programs for the handicapped have been in existence in the United States for over one hundred years. During this period, great strides have been made to accommodate the handicapped into the mainstream of society and, more specifically, into the public schools. Enrollment in special programs has continued to increase to its present level of 3.5 million students in 1977-78. Figures released by the Department of Health, Education, and Welfare indicate that approximately 8 percent of the school-age population between 5 and 17 are currently enrolled in programs for the handicapped.

This increase in enrollment in special education programs has caused concern for educators, especially regular educators and administrators. This concern is prompted primarily because programs for meeting the needs of each handicapped student are more expensive and labor-intensive.

The goals for the education of the handicapped can be best summarized by the term "individualization." Individualized or personalized instruction places the emphasis on the instructional process of each individual pupil's interests, abilities, motivation, goals, rates of learning and prognosis for moving ahead in various skill and content areas of the curriculum. The concept of individualized instruction or individualized programming is dictated to the public schools by the rules and regulations established for Public Law 94-142, better known as the "education of all handicapped" act. This goal for the handicapped places the special education program in the schools in a unique position if it becomes necessary to reduce funding and staffing because of financial crisis. Special education programs for the handicapped are mandated by service to the individual child and not by curriculum content or area; therefore, great care must be taken to consider changes in the expenditure of funds for the education of the handicapped.

Special education programs have received support from court mandated decisions such as PARC vs. Pennsylvania (1971) and Mills vs. D.C. Board of Education (1972) in which education for the handicapped was deemed to be a right, rather than a privilege. Parents' rights to participate in major decisions affecting their children and the concept of "least restrictive environment" were introduced to the public in these decisions. In addition, nearly all of the state legislatures have passed mandatory legislation for the education of the handicapped in public schools. Section 504 of the Rehabilitation Act of 1973 provides procedural safeguards for the education of the handicapped.

### ISSUES IN SPECIAL EDUCATION PROGRAMMING

The education of the handicapped in the public schools has raised many questions for members of boards of education and school administrators. Five issues confronting the schools in the education of the handicapped have been identified for the purpose of discussion: 1) acceptance of the handicapped into the mainstream of education; 2) parents' demands for involvement in the educational programming for the handicapped; 3) labor-intense requirements of programs for the handicapped; 4) physical plant modifications necessary to accommodate the handicapped; and

5) enrollment trends in special education for low incidence handicapping conditions.

**Acceptance of the Handicapped in the Mainstream**

Regular classroom teachers are raising questions about the placement of mildly handicapped students in the regular classroom. Their questions relate to numbers of handicapped students who can be served in the regular classroom without adversely affecting the teacher's ability to serve the non-handicapped. Teachers are currently objecting to these placements in many sections of the United States. The placement of handicapped students is a bargaining issue in many school districts and teachers are asking for reduced class size and more planning time if they are to serve mildly handicapped students. These discussions raise not only philosophical and pedagogical issues but also issues about potential impact on the cost of education. Research data about the efficacy of regular class placement of mildy handicapped students are inconclusive and do not provide sufficient direction to boards of education, administrators, and teachers.

The issue of the regular class placement of handicapped students, however, is clearly addressed in the rules and regulations for P.L. 94-142, where the concept of "least restrictive environment" is used to connote that the most appropriate educational program for the handicapped is one most like that of their non-handicapped peers. Within the issue lies the question, "Which approach to the education of the mildly handicapped is most effective and cost-efficient?" Should more indirect consultative service be provided with the regular classroom teacher? Should more direct service be rendered to the handicapped student enrolled in the regular classroom to provide relief for the regular classroom teachers?

**Parent Demands for Involvement in Educational Programming**

Parents are demanding more input into the educational programming for their handicapped children in the form of approval of educational provisions and direct input into the identification and placement processes. Due process requirements outlined under P. L. 94-142 and the Family Rights and Privacy Act have required reorganization of manpower in the public schools and often the employment of additional staff members. Expenditures by local educational agencies are likely to increase if questions are raised about the appropriate placement of handicapped students. Legal fees and time away from the job by school administrators could begin to tax the efficiency of the overall management of the schools.

This issue is one that is difficult with which to cope because a school district cannot predict with accuracy the amount of time that parents of handicapped students will demand; therefore, the ambiguity of the issue is frightening from a management standpoint. The routine planning of individual educational programs for the handicapped will always take considerable amounts of time from teachers, building administrators, and pupil personnel staff. School districts will need to examine carefully the policies and practices employed in placing and staffing individual students to determine if the districts can be more cost-efficient and still meet the intent of the law and, more importantly, the needs of individual handicapped students.

**Labor-Intense Programs for the Handicapped**

Special education programs are labor-intensive, which make them very expensive to operate. The per-pupil cost of the education of the handicapped is

considerably higher than that of their non-handicapped peers. This cost factor is primarily due to the number of personnel required and the relatively low teacher-student ratio in the programs. In addition to the cost factor of programs for the handicapped, a shortage of qualified and trained special education personnel exists to staff the increasing number of programs.

Currently, teacher training institutions are having difficulty preparing enough teachers to meet the demands for staff to operate programs for the severely and profoundly handicapped. This problem of qualified personnel should be one of short-term duration.

The central issue in staffing for the handicapped is: Are school districts efficient in their programming for the handicapped? Could programs for the handicapped be staffed as well with fewer, more highly trained professionals and more paraprofessionals and entry-level trained professonals? If this is possible, then the cost of the programs can be substantially reduced.

**Physical Plant Modification to Accommodate the Handicapped**

Programs for the handicapped have required local educational agencies to provide "barrier-free facilities" to accommodate the handicapped in the public schools. Many school districts are having to make one-time outlays of funds to modify existing structures and to build more appropriate facilities. In addition, local educational agencies which formerly operated separate facilities for the handicapped are being required to place the handicapped students within buildings where non-handicapped students are enrolled. Many of these separate facilities formerly used exclusively for small groups of handicapped students have limited utility for other uses.

The physical plant modification issue is one confronting local educational agencies which can be resolved with one expenditure of monies. After the necessary changes have been completed, then the only costs will be for the operation and maintenance of facilities.

**Enrollment Trends in Special Education**

School enrollment trends in general education indicate a decline in the number of students in the public schools for the next decade. This decline in enrollment of non-handicapped students is in sharp contrast to the expected trend in special education programs for the handicapped. Estimates are that enrollment in special education will increase with the extension of public school responsibility for preschool handicapped students and the extension of more programs for the older handicapped student. Many of these new programs will be for the more severely/profoundly handicapped students with multihandicaps. These students will require labor-intensive programs with a student-teacher ratio of 4 to 1 and often less.

There is doubt at this time whether programs for the mildly handicapped will remain stable or whether there will be a gradual decline in enrollment. One of the sub-issues in the enrollment question is whether mildly handicapped students will require less direct programming assistance from special education professionals as a result of regular classroom teachers' gain in sophistication in meeting the needs of and accommodating the handicapped student in the regular classroom. Many dollars have been invested in Dean's Mainstream grants and other programs to

improve the preparation of regular classroom teachers to accommodate students with a diverse range of abilities. An improvement in regular teachers' skills for helping the handicapped should reduce the need for direct services to mildly handicapped students who spend a majority of their time in the regular classroom.

The five issues discussed affecting local educational agencies all have potential impact on cost of special education programming for the handicapped. In some cases, realignment of service delivery patterns can provide substantial savings to the local school district. Since, in most cases, the services for the handicapped are mandated by law, it is not possible to eliminate services; however, boards of education will need to take a close look at the cost effectiveness of the district's programs.

## PROGRAMMING ALTERNATIVES

What are the alternatives to the present special education programs? Are there major modifications which can be made to reduce the expenditure of funds? As school board members make fiscal decisions, they may find it necessary to review carefully the budget to determine where small savings can be realized. Reductions in budgets for mandated special education programs will not be easy to make. When contemplating their alternatives, boards would be wise in examining four areas of programs for the handicapped: 1) identification of the handicapped; 2) instructional programming; 3) staffing of programs; and 4) management and evaluation.

### Identification of the Handicapped

In the process of analyzing the budget to determine areas where tax funds can be conserved, one of the first to be analyzed is the area of the identification of the handicapped. Many hours of staff time and energy are required to obtain the necessary parental cooperation to screen potential handicapped students and to do a diagnostic work-up of each child staffed for placement in special programs. Potential efficiency in the process can be in the area of reduction in the duplication of screening of students by the regular classroom teacher, speech therapist, diagnostic resource teacher, and school psychologist. Individual school districts need to review the roles and responsibilities of each member of the diagnostic team in the idenification of handicapped students to determine if they are meeting both the intent of the law and the needs of the student. The coordination of the identification process alone can make substantial savings in time and energies of pupil personnel staff.

In the case of the mildly handicapped, it may become necessary to develop more rigorous identification procedures. By establishing these standards, it is possible to increase assurance that only students who are in need of specific special education programming are identified; therefore, fewer students would be identified as handicapped and thereby decrease the staffing needs of the district. In this manner many of the borderline handicapped students would not be labeled and they could be served as well in the regular education program.

Efficiency is a key issue in the staffing for handicapped students. Pre-planning and careful organization can reduce the amount of time involved in the actual staffing session and in the amount of time required of staff members in preparing

information. The suggested way to increase the efficiency of this process is to prepare formal guidelines and responsibilities for each staff member. In this way, one person would be responsible for coordinating the total identification process, including the gathering of necessary information and conducting the program planning meeting.

Regular classroom teachers are probably the one resource not utilized enough in the process of identification of the handicapped child. By merely developing more sophisticated referral procedures, teachers in the regular classroom could gather information specific enough to make it unnecessary for other diagnostic staff members to collect about academic skills and functioning. Presently there is a tendency to have each level of the placement process—referral, screening and formal testing—duplicate some of the information gathered in the preceding stage. This duplication is caused by inefficient management of the identification procedures.

In many school systems, pupil personnel staff members, as the school counselor, have not been utilized to the fullest degree in identifying the handicapped. Counselors by training should have excellent interpersonal skills, which would make them invaluable in working with parents. Counselors would be logical candidates to coordinate staffings for the individual educational programs for students. This role extension, in some programs, would be possible without adversely affecting the counselor's other responsibilities.

In the identification process for the handicapped, more efficient use of staff, nonduplication of services, and coordination are the keys in the process of reducing expenditures. In many special education programs, these changes in staff responsibility could be handled at an administrative level.

**Instructional Programming**

Increased demands for more programs for the handicapped are going to force school districts to look carefully at the way they expend their rather static financial resources in a time of inflation. One of the areas to consider in the process of delivering services to the mildly handicapped is to provide more indirect rather than direct service. Indirect service to handicapped students came about under the assumption that providing regular classroom teachers with process knowledge in planning for students would have more impact than providing limited direct service to students from other professionals. The model is employed extensively in educational programs where mildly handicapped students are enrolled in the regular school program for a majority of the day. The issue is whether the indirect service is less expensive than the direct service, not whether the indirect service model is better accepted by the regular classroom teacher. The indirect service model does require more responsibility and effort from the regular classroom teacher who will be providing services to the mildly handicapped. The intent of the indirect service is to provide, through consultation with regular classroom teachers, the skill in adjusting curriculum to meet the needs of individual students, with the classroom teacher taking major responsibility for implementation of the program.

Close scrutiny needs to be given to the education of the severely/profoundly handicapped when making budgetary decisions. There is very little research and literature to provide guidance to the most efficient and feasible educational delivery system. The nature of the students' handicaps will undoubtedly require

more individual attention from the professional staff. The question arises around the issues of what the staffing patterns should be and the training level of the professional staff. The employment of and deployment of paraprofessionals is of great importance. The issue is, what is the most appropriate or optimal ratio of paraprofessionals to professional staff? This question has not been answered at this time.

Many of the commercially-produced instructional materials available to special education have not been adequately field-tested and in many cases are unsuited for use in the classroom. Many expensive material purchases are made on inadequate information about the usefulness to the instructional program. Careful attention needs to be paid to the selection of instructional material which can lead to rather substantial reductions in expenditures of funds for special education. Staff members need to develop formal means of evaluating instructional materials and to provide a rationale for their ultimate selections.

**Staffing**

Staffing for handicapped students is complex when one views the range of handicapping conditions and the wide array of service-delivery models available, which range from total educational programming in the regular classroom to total educational programming in special classes. The questions include concern about training levels of staff, at pre-service and inservice levels; certification requirements for special educators; differential staffing utilizing paraprofessionals and parent-school liaison for programming.

With the increased attention being given in pre-service training of teachers to meeting the needs of mildly handicapped students in the classroom, it is assumed that new teachers will be better prepared and able to instruct students with a wider array of skills. If this assumption is true, it may logically follow that less direct service will be needed for mildly handicapped students enrolled in the regular classroom. Increased inservice education has the potential of providing reassurance and pedagogical methodology for regular classroom teachers in meeting the educational needs of the handicapped students. The efficacy of inservice training for teachers does not look too promising in changing teacher attitudes; however, on-going involvement in staff development programs can be helpful.

Teacher certification standards for special educators need to be carefully examined to determine if appropriate training is required for professionals. In addition, standards need to be established for the preparation and supervision of teacher aides employed in programs for the handicapped. The employment of teacher aides and use of volunteers can expand both the service to the individual handicapped child and reduce the expenditures for the educational program.

Parent-liaison programs permit both closer relationships between the school and the home and the potential for another means of delivering programming assistance to handicapped children. School personnel will need to determine how effective such programs would be in assisting handicapped students.

**Management and Evaluation**

Since special education programs, nationally, contain approximately 8 percent of the student enrollment, there is cause to examine the effectiveness of the pro-

gram and method of supervision. One of the first places where fiscal restraint can often take place is in the area of employment of consultant and supervisory staff. In the past five years, the number of separate administrators for special education programs has increased substantially along with the number of consultants to individual programs for the handicapped. Careful examination of the duties and responsibilities of these positions may provide additional personnel to help in the identification of the handicapped. The hiring of staff members with diverse training can be helpful in the reduction of the cost of managing special education programs.

School districts need to evaluate regularly the effectiveness of the programs for the handicapped to determine if services could be delivered at a similar level at lower cost. Parental input, student skill attainment, and staff satisfaction are some of the variables to examine in determining the effectiveness of the program.

## REDUCTION IN FUNDS FOR SPECIAL EDUCATION

If current expenditures for special education programs do comply with the legal mandates for programming for the handicapped, current staffing at the instructional and administrative levels may be at their minimal level with no allowances for reduction. In reviewing program funding, two factors may decide if reductions in financing special education are possible. First, educational service units and special education cooperatives have been developed to provide maximum special education services at minimum costs. These agencies, themselves, may have to do an ongoing evaluation of the effectiveness of their programs both from student service and cost effectiveness perspectives. Second, public school districts may make dual administrative assignments for special education supervisory positions to building level administrative personnel, e.g., half-time principal and half-time special education. When this is done, there may be little room for reduction in funding.

In the review of programs boards of education have four basic funding components: transportation, staffing, instructional materials, and auxiliary personnel. Of these four areas, staffing requires the major portion of the budget. If significant funding reductions are to take place, they must be in the area of staffing. As cited earlier, it may be impossible to reduce total elements of the special education program, however, differential staffing and the use of paraprofessionals may provide a way to be more cost effective in program delivery.

The other potential means of substantial reduction of staffing would be in the area of service to the mildly handicapped in the regular classroom. Regular classroom teachers may have to assume greater responsibility for the total program for the mildly handicapped if significant fiscal savings are to occur.

In the area of transportation, there will probably be very little room for cost savings. Instructional materials and equipment items may provide a limited area for budgetary reduction. Instructional materials and equipment do not make up a large portion of the special education budget, however, with prudent purchasing some savings can be achieved. The guideline needs to be if materials and equipment are essential for the program or if they will provide a means of delivering services in a more effective and efficient manner.

Program expenditures for auxiliary staff in special education will give boards of education a limited access to savings. The roles of the school counselor, school psychologist, and resource personnel need to be examined to determine if optimal services are being delivered to the special education program. Even in this area of staffing, it is unlikely that substantial realignment of staff can be made. At best, it appears that consolidation of roles may be the only benefits to be derived.

In conclusion, only careful line item scrutiny of the budget will allow for reductions in the fiscal requirements for special education. Major changes in the delivery of programs to the mildly handicapped appear to be one of the more viable alternatives. This alternative does have many potential problems for the local educational agencies. Classroom teachers will undoubtedly be displeased with the prospect of decreases in support services for the mildly handicapped. This displeasure will have to be carefully weighed in making decisions about programs.

## Chapter 9

## A LONG-RANGE PERSPECTIVE

Within the past five to ten years a number of events have dramatically altered the operation and outlook of public education. A substantial decrease in the birth rate, demographic shifts of large numbers of people from one community or area to another, enrollment surges through grade levels, and other population changes have had a significant impact on the public schools. The decrease of over five million students from 1970 to 1980 in elementary and secondary schools is not the problem. Enrollment declines of 4 or 5 percent in a district or state are not the problem. Increases of over 60 percent in expenditures per ADA in a recent five-year period on a national average are not the problem. The problem facing school board members and administrators is: How are we going to manage fewer students in the face of rising costs?

There is a considerable risk in generalizing about enrollment declines. While one district, hemmed in by district boundary lines, is experiencing a decline in student enrollment, a neighboring district may have an increase in students and be busily engaged in school construction, hiring additional staff, expanding programs, and other activities that accompany growth in numbers. In the Midwest seven-state area from 1970 to 1975 there were considerable differences of enrollment stability. Six states showed a decline in enrollment (percentage decline is given in parentheses): Wyoming (-2.3), South Dakota (-2.5), Nebraska (-4.0), Missouri (-4.4), Iowa (-6.7), and Kansas (-12.9). For that same time period Colorado had an increase in enrollment of 2.4 percent.[1] Student enrollment is highly variable within a region, state, area within a state, and even between attendance units within an administrative unit.

A further complication is that declining resources are accompanying declining enrollments. Although student populations have declined, total operating and per pupil costs have steadily risen. The rising cost of petroleum products, electricity, paper, natural gas, and other goods and services have steadily pushed up the Consumer Price Index. Fixed charges to schools, as Social Security payments, have added substantial costs over which schools have no control. Some mandated programs, particularly special education, have necessitated expenditures which in previous years consumed few resources. Oftentimes programs mandated by state or federal governments are not fully funded by that level of government and the district is required to bear costs not of its own choosing. Staffing costs not only consume the greatest share of the budget but have tended to increase that share as well. Many districts have sought to lower the staff/student ratio and thus increased the size of the staff. The average age of the teaching staff has increased and this has placed teachers into higher brackets on the salary schedule. There is also the possibility that questionable management practices permitted the hiring of

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[1]Susan Abramowitz and Stuart Rosenfelds, eds., **Declining Enrollment: The Challenge of the Coming Decade**, (Washington: National Institute of Education, 1978), 189 and 191.

unnecessary staff in times of economic prosperity. When there is a limited number of dollars for expenditures, an increase in costs to purchase oil, retirement insurance, or services of personnel reduces the amount available for other supplies or services. The result is a dollar squeeze on every portion of the budget.

The public can readily understand the pinch caused by rising costs as individuals' pocketbooks are touched by the same factors. At the same time the public may support lower teacher/student ratios. What is less apparent is that a loss of several percent in student numbers does not produce a similar reduction in expenditures. Enrollment declines do not occur at one attendance unit, grade level, etc., but are scattered across schools, classrooms, and subjects. One or two students fewer in a classroom does little to reduce total expenditures even though in a large district the sum of enrollment declines may reach into the tens or hundreds. Until administrators find a way to consolidate enrollment losses, few dollars in savings can be effected.

## AN OPTIMISTIC VIEW

Even today, education remains a bargain. Based on an national average of $1600 expenditure per pupil, the average hourly cost of instruction (180 school days × 6 hours per day) is not quite $1.50. Or, figured another way, the parents of two children would have to pay $41,600 to educate their children from K-12 if the annual cost per child was $1600. Fortunately the battle for free public education was fought and won well over a hundred years ago.

Declining enrollments do hold out the promise of educational gains and benefits for students. Hopefully, the necessity of closer budget scrutiny will allow increased amounts for programs that are the most useful or enriching. Smaller class sizes have accompanied enrollment declines and may contribute to better learning opportunities. The public's keen interest in school programs, budgets, closings, busing patterns, and related matters can provide greater citizen input into and involvement in school affairs and help to bring about broadly based improvements. The emphases on planning and citizen involvement noted in previous chapters are keys to the resolution of problems brought about by declining enrollments and resources. Currently in Lincoln, Nebraska, a citizen's task force of 100 persons is grappling with problems caused by population shifts, declining enrollments in some attendance unit areas, and increased enrollments in other areas of the community. The efforts of that body will do much to broaden citizen understanding of and support for the tough decisions that lie ahead. One of the prospects that task force and many other persons will need to consider came from the U.S. House of Representatives Select Committee on Population.

> School districts should be cautious about disposing of buildings not in use because they may be needed later for rising enrollments. Projections show the number of school-age children will decline through the mid 1980's, but will then rise again through the end of the century before once again decreasing. Policymakers must balance the cost of unused buildings and personnel today against the cost of building them up again later.[2]

[2]"Think Twice Before Getting Rid of Unused Buildings," **Education U.S.A.**, (February 5, 1979), 172.

Officials from federal and state governments and other agencies are studying the problems caused by declining enrollments and resources and providing population projections, planning tools, ways to analyze local conditions, information on how other districts have coped with similar conditions, and data on a wide variety of topics. In our decentralized system of education the ultimate decisions lie with the elected officers of the board. Their decisions need not be made in a vacuum but can be based upon rational decision-making processes and carefully thought out values.

## A PESSIMISTIC VIEW

Wasn't it Diogenes who was out with his lantern looking for an honest man? If Horace Mann were alive today and looking for an educator who saw nothing but gloom surrounding declining enrollments and resources, how long would he have to look? The hand-wringers and prophets of doom have much to moan about today. Per pupil costs are rapidly rising and likely to do so in the near future. In spite of the federal government's efforts to fight inflation, there is no sign that high rates of inflation and unemployment are diminishing. Enrollment declines are likely damaging to a school's operation and the staff's morale unless careful planning is done. One district reported enrollment figures from a peak of nearly 10,000 students in 1971 to a projection of 5,800 in 1982-83. While this decline calls for a critical look at the district's programs and staffing, it "can have some positive effects, including better communication among staff members and more individual attention for students."[3] But revenue losses for support of the school and local businesses can have severe economic impact on the schools and the community. In smaller communities a small business making a marginal profit may be forced to cease operations. Even a small chain reaction from the closing of a couple of stores can bring about the reduction of services to the people in a community and diminish the attractiveness of the shopping area and town. Teacher organizations will likely be more vigorous and intense in their dealings with boards of education. Negotiating teams will press hard for increases in salary payments and fringe benefits, job security provisions, seniority protection, solidifying and strengthening the association's rights and membership ties, tenure rights, input into curriculum issues, and working conditions. Teacher organizations will likely support or advocate the reduction or elimination of any aspect of the school's program that does not involve the reduction in staff. These economic and personnel factors will cause board of education members and their admininstrators difficulties but may, in the long run, be no more insurmountable than the problems of expansion of the baby boom of the 1950's.

More than likely, neither the optimist nor the pessimist will rule the day. The realist who recognizes the difficulties of the day and converts them into opportunities is the most likely to prevail. And he who plans best is also the one who best organizes, directs, and controls the operation of the school and its programs.

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[3]"What Does Declining Enrollment Mean to District 66?" **Community Edition Report**, The Westside Community Schools, Omaha, Nebraska, (Winter, 1979), 4.

## CHANGES IN OPERATIONS

What effect will declining enrollments have upon district organizational patterns? Will there be more school district reorganization and consolidation? Will fewer students mean that rising costs eventually result in the elimination of programs, services, personnel, and educational opportunities? Will state governments be forced or take the opportunity to play an even greater role in the establishment of policies and practices that govern the schools? Will the state bear a greater share of operational costs as fiscal resources decline at the local level? Will there be fundamental changes in the structure and management of public education? These and similar questions are frequently proposed in consideration of declining enrollments and resources and elicit consideration at both state and local levels.

How can districts alter their organizational patterns to handle declining enrollments? One alternative is keep programs in operation as they have and to use vacant spaces for programs that were formerly in cramped quarters or had none of their own. Some schools could provide rooms for community services, meals for elderly citizens, day-programs for adults, separate rooms for art or vocational classes at the elementary level, better or enlarged space for special education or vocational education students, larger administrative quarters, work spaces for teachers, conference rooms, and the like. The relocation of students is another alternative. Often this includes the closing of a school building, at best a difficult process, and an alternative that requires extensive long-range planning, citizen input into the decision, broad community support, and a courageous board of education. The size of the district's student population is still another matter. How small can a district or school be and still offer a high quality program to students throughout all grade levels? Consolidation of two or more districts, or attendance units, into one larger district or school does not always result in a reduction of costs. District reorganization may call for increased transportation costs and the establishment of additional programs that neither small district could afford alone. The consolidation of attendance units requires the dissolution of a neighborhood school, longer distances for students to travel to school, a lowering of property values for the vacated area, and psychological trauma for those persons who have seen a symbol of their neighborhood's vitality disappear. Small schools may also mean the opportunity for more individual attention, smaller classes, greater chances for more students to compete in school activities, and similar social advantages.

Both large and small schools will be required to pay more attention to education quality. There will be resistance to expand or to initiate new programs, to implement reduction in force procedures, to close a building so that no single area has to pay a greater price than another, or to ignore the entire issue. But the possible benefits of smaller classes, low teacher/student ratios, increased space, more stable teaching staffs, and changes brought about by social and economic conditions can be capitalized upon by school officials. A declining enrollment may mean that certain courses are offered less frequently or that counselors, students, and parents will have to pay more attention to programming. Could classes that are not so readily available become more attractive to students? Will classes that are contingent upon student registration be made more appealing by teachers if it is known that student registration is a factor in program cuts?

## SEEKING SOLUTIONS

Difficult problems seldom evoke simple solutions. The problems caused by declining enrollments and resources require extensive investigation, reflective thinking, careful planning, weighing of often conflicting values, and rational decision making of the first order. The generation of a wide set of alternative solutions to any felt need, or problem, is undoubtedly one of the keys to the resolution of the need. The accumulation of a broad data base upon which to weigh the probable outcomes of each alternative is also a key factor in determining the best possible alternative. For example, there are studies which demonstrate that "schools can save 30 percent or more in energy costs with a relatively modest investment in building changes."[4] Comparative cost studies on various programs, activities, and organizational patterns, as the year-round school, are available. The literature on school organization and administration, the instructional program, operation and maintenance, the activity program, staffing, and enrollment is extensive and contains numerous reports, studies, and discussions. The annotated bibliography is grouped under these major headings for easy reference. Nevertheless, there is no convenient set of do's and dont's, no checklist that covers all situations, and, above all, no way to reduce the need for hours and hours of talking, meetings, planning, persuading, listening, reading, reflecting, gathering data, mulling over feedback, developing proposals, bending over the drawing board, attending conferences, and other forms of hard work that seldom fail to substitute for gifts or easy solutions.

The issue of declining enrollment itself is an example that requires careful attention by a school board and its administrators. Each district must examine population data in its own district. Data from a broad base, as state compiled figures, may be wide of the mark at the local level. District officials must make sure they are aware of possible enrollment declines and do not underestimate a potential decline. There is a need for demographic data to be presented in usable form. The data should be categorized into small units, as for each age group, and for the administrative and attendance units. Data which are too aggregate are less useful. Another concern is to prepare reports into copy that is readily understood and not too technical. There is the possibility that population projection reports which are too complex use aggregate data and those too difficult to understand will not be used. A whole host of ensuing problems can compound the situation if studies on future student enrollments are not properly conducted.

The problems created by declining enrollments and resources do not seem to call for a new set of administrative skills and procedures. Long- and short-range plans need to be adopted. Enrollment projections must be developed. Staffing patterns have to be identified. Fiscal resources must be estimated. Staff development activities must be implemented—perhaps with new goals and emphases in mind. Priorities must be set. Comparisons of the value of programs and activities must be made on the basis of cost, potential benefits to students, community needs, state or regional accreditating association requirements, perceived value, the district's philosophy, and established priority. Difficult questions will have to be raised and

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[4]"Energy-Saving Projects Really Do Work," **Education U.S.A.** (January 29, 1979), 164.

resolved. How many students benefit how much from this program versus this program? Where can we cut costs? What do we want as a desirable staff/student ratio? Can we afford to continue to hold classes in that buiding? How much will the savings from closing an inefficiently operated building be offset by increased transportation costs? How can we improve our instructional program without bankrupting our district? Is it reasonable to expect our staff to be more productive? How reasonable are the staff's demands for more pay, better fringe benefits, etc.? Can we save money with a year-round school? Should the state become involved with the payment of insurance programs? Can we improve education and the quality of young people's lives by reducing the amount of student activities? What is a basic? What is a frill?

Some of these questions can be ignored because they are not relevant or because they do not concern a local district. Others can be sidestepped by officials who can spot the most expedient and/or political solution. Other strategies can be employed to switch the focus from critical, value-laden problems to others of a less complex nature. But in the long run, the educational opportunities of youth can best be served when issues are clearly identified, met up-front, considered in open debate, viewed from a variety of perspectives, based upon input from a wide range of representatives from the community, and based upon the best known practices and data available to-date. In essence, the effective school board and professional staff should continue to follow the same administrative procedures and processes they have in the past.

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by

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## I. ADMINISTRATION AND ORGANIZATION

### A. CLASS SIZE

Bozzomo, Lawrence L. "Does Class Size Matter?" **National Elementary Principal**, LVII (January, 1978), 78-81.

Generally speaking, classes of fewer than thirty are healthier and more productive for children, and lay persons and educators should keep that in mind when considering the class size issue.

**Effects of Class Size on Reading Achievement in Grades 1-3 in the Madison Metropolitan School District.** Madison Public Schools, Wisconsin, 1978. U.S., Educational Resources Information Center. ERIC Document ED 140256.

A study was conducted to determine the effects of class size on the reading achievement of 517 representative Madison (Wisconsin) students in a three year longitudinal sample. Data included reading achievement, IQ, attitudes toward reading, parents' and teachers' ratings of student interest in reading, sex, age, socioeconomic status, and average class sizes. Scores on the Sequential Tests of Educational Progress (STEP) at the end of the third grade were used as a criterion of final reading achievement. Among the results were the findings that class size is virtually nonpredictive of reading achievement; that only one of the 517 sampled students was enrolled in classes of 20 or fewer students for three consecutive years; and that, when "small" was defined as less than the median class size for each of the three years, there was a slight trend toward lower STEP scores in the small classes, reflecting IQ differences associated with the effects of the special education programs in Madison. Because of confounding with attendance area and special education programs, it was not possible to determine if placing students in small classes, grades one to three, would have any effect on their reading achievement scores.

Cahen, Leonard S. and Nikola N. Filby. "The Class Size/Achievement Issue: New Evidence and a Research Plan," **Phi Delta Kappan**, LX (March, 1979), 492-95, 538.

A report of the "meta-analysis" of Gene Glass and Mary Lee Smith who discovered important student achievement gains of small class size, of 15 students or fewer. This article details the procedures, findings, conclusions and implications for school policy of the Class Size and Instruction Project, Far West Regional Laboratory, San Francisco.

Furno, Orlando F. and George J. Collins. **Class Size and Pupil Learning**. Baltimore City Public Schools, Md., 1967. ERIC Document ED 025003.

To test the hypothesis that pupil achievement is inversely related to class size, a 5-year study (1959-1964) examined the relationship between class size and pupil achievement in reading and arithmetic. Data were taken from records of the Baltimore public school system for all 16,449 grade 3 pupils in the class of 1959, comprised of 6,568 regular white pupils, 8,341 regular nonwhite pupils, 441 special education white pupils, and 1,099 special education nonwhite pupils. Pupils in smaller classes in both the regular and special education curricula were found to make significantly greater achievement gains than students in larger classes. Smallest class size (1-25) was considerably more productive for nonwhite than for white students. Other variables correlated to class size and pupil achievement included pupil home mobility, parental occupation and level of education, percentage of nonwhite faculty, faculty knowledge, and faculty experience. A review of related research and a description of the research design are included. Extensive comparisons from the study's findings are tabulated and described.

**The Influence of Class Size on Academic Attainment and Student Satisfaction.** Edward E. Clark High School, Las Vegas, Nevada, 1969. ERIC Document ED 021252.

This investigation determined if students showed a difference in academic attainment or attitude toward school as a result of membership in an average or above average size group. Some 224 male and female students in average or above average size classes in Business Law, Introduction to Business, and Government served as subjects. They were randomly scheduled into classes. Pretest and postest scores on teacher-made tests were analyzed to measure academic attainment. No significant difference in academic attainment was found for either Business Law or Introduction to Business classes. A significant difference was found for the course on government. No significant differences for satisfaction with learning environment, resulting from differences in class size, were found for any of the three courses.

Johnson, Mauritz and Eldon Scriven. "Class Size and Achievement Gains in Seventh- and Eighth-Grade English and Mathemetics," **The School Review**, LXXV (Autumn, 1967). ERIC Document ED 016653.

Using data obtained by the quality measurement project on some 70,000 pupils, this study attempted to produce evidence regarding the influence of class size and class homogeneity on achievement gains in grades 7 and 8. A total of 130 English and 135 mathematics classes classified according to size and homogeneity were examined. The reading comprehension and arithmetic test scores on the Iowa Test of Basic Skills were used as the measures

of achievement. Results indicated that gain differences in respect to class size and class variability were generally very small and inconsistent. Becasue two-thirds of the classes studied consisted of from 23 to 32 pupils, the largest and smallest classes (larger than 34 and smaller than 24 students) were isolated for separate comparison. Results confirmed that there was no instance of a significant difference in achievement gain even between these extreme groups. Although these tests do not measure all types of achievement, they do suggest that attention might more profitably be directed toward reducing the number of classes assigned to one teacher than toward reducing the size of the classes themselves.

Lindbloom, Dwight H. **Class Size as it Affects Instructional Procedures and Educational Outcomes.** Minneapolis: Educational Research and Development Council of the Twin Cities Metropolitan Area, Inc., 1970. ERIC Document ED 059532.

This literature review attempts to ascertain the relationship between educational outcomes and class size in elementary and secondary schools. Material analyzed includes individual research studies available in periodicals, monographs, doctoral dissertations, and research reports. Other reviews, literature analyses, and research related to class size were also consulted. This report analyzes, condenses, and summarizes this extensive mass of literature and addresses itself to those responsible for formulating policy on class size within school districts.

Little, Alan and others. "Do Small Classes Help a Pupil?" **New Society**, XVIII (October, 1971), 769-71.

Meredith, Vana H. and others. **South Carolina First Grade Pilot Project 1975-76: The Effects of Class Size on Reading and Mathematics Achievement.** South Carolina State Department of Education, Columbia, 1977. ERIC Document ED 135072.

This study was intended mainly to examine the effects of class size on the reading and mathematics achievement of first graders and also to determine the effects of teacher inservice training on student achievement. Data were gathered from 25 pairs of first-grade classes from 23 South Carolina school districts. Each pair of classes were made up of one experimental and one control class of similar racial and socioeconomic background but different size. Experimental classes contained an average of 19.9 students, while control classes contained an average of 26.7 students. Approximately half of the 50 teachers received inservice training; within each pair of classes, either both teachers or neither teacher received inservice training. Results indicated that the overall achievement of first-grade students in small classes was substantially greater than overall achievement of students in large classes. However, neither teacher inservice training nor the interaction of class size and inservice training had any significant effect on overall achievement.

Murphy, William F. **Class Size and Teacher Load.** Newton, Mass.: New England School Development Council 1975. ERIC Document ED 107627.

This review of research on class size is organized into two parts. Part 1 presents a summary list of true statements with respect to the central topic of this study. The statements are divided into three sections: (a) class size and pupil achievement, (b) class size and teaching procedures, and (c) teacher load. Some statements can be accepted as facts; others should be considered in the literature. It is noted in part 1 whether the statement is being presented as a fact or contention; each statement is accompanied by references on part 2, where support for the statement can be found. Part 2 contains an analysis of the research on (a) terms and definitions in this area, (b) findings with respect to class size and pupil achievement (c) studies of class size and teaching processes, (d) teacher load and its relationship to instruction, and (e) the law and contractual precedents on this issue in the state of Connecticut.

**New Patterns of Teacher Education and Tasks.** Washington: Organization for Economic Cooperation and Development, 1974. ERIC Document ED 107602.

This monograph includes three papers that discuss ways teachers can respond to new teaching and learning demands. Part 1, "Initial and Continuing Training of Teachers: New Trends and Concepts," examines (a) general principles of the development of teacher education, (b) implications of new trends and concepts for recruiting members of the teaching profession, (c) the crucial period of initial training, (d) various arrangements for inservice training, (e) administrative arrangements for new progress of professional education, and (f) policy implications of various new approaches presented in the paper. Part 2, "New Patterns of Teacher Tasks and Their Implications," focuses on (a) present trends in the distribution of responsibilities for teaching and learning, and (b) types of environment most likely to favor active and effective participation of teachers in educational innovation. Part 3, "Class Size as a Factor of Pupil Performance: A Policy Analysis," discusses a prevalent teacher view concerning the need for class reduction in order to increase efficiency. This paper presents and examines research demonstrating that student achievement is either not related to class size, or is higher with larger classes. Each part includes a section of policy recommendations and conclusions.

"Newsfront," **Phi Delta Kappan**, LX (February, 1979), 411.

Porwoll, Paul J. **Class Size: A Summary of Research.** Arlington, Va.: Educational Research Service, Inc., 1978. ERIC Document ED 153372.

The research on the effects of class size is summarized in this review. It includes (1) an introductory examination of class size definitions, statistics, and research design; (2) a summary of the research on class size, including the effects of class size on student achievement for grades K-8 and 9-12 and on the classroom environment; (3) teacher and public opinion on class size; (4) examples of the budgetary impact of altering class size; and (5) some of the policy implications of class size. The author advises school decision-makers to go beyond the customary generalizations about class size and ask instead, "Which types of students might benefit the most from smaller classes?" The appendix contains statistics on pupil-teacher ratios for states and large cities.

**The Question of Class Size.** Washington: National Education Association, 1977. ERIC Document ED 133325.

Studies that conclude that class size makes no difference are based almost entirely on student achievement of cognitive scores, whereas those studies that find class size significant include other important factors such as creativity, decline of learning and behavior problems, better class control, problem-solving and retention, and the amount of opportunity for each child to participate and express himself orally. "Indicators of Quality," an instrument measuring individualization, interpersonal regard, group activity and creativity, has revealed a near perfect linear relationship between class size and quality of the educational quality drawn from over sixty class size studies, and supported by their data, show that with a small class size: (1) teachers provide a wider variety of instructional methods and learning activities; (2) students benefit from more individualized instruction; (3) students engage in more creative and divergent thinking processes; (4) students learn to function more effectively as group members and leaders; (5) students develop better human relations skills; (6) students learn basic skills better and master more subject matter content; (7) classroom management and discipline are better; (8) teacher attitude and morale are more positive; and (9) student attitudes and perceptions are more positive. Seventy-two documents are cited in the list of references on class size and educational effectiveness.

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This analysis outlines the generally inconclusive nature of class size research. In the area of achievement as it relates to class size, the research is demonstrated to be especially inconclusive. In addition to analyzing the problems and weaknesses of class size research, this paper summarizes the effects of class size on the educational process and on student and teacher attitudes, as well as the economic effects of reducing class size. A 60-item bibliography is included.

Shapson, Stan M. and Others. **Results of an Experimental Study of the Effects of Class Size.** Paper presented at the Annual Meeting of American Educational Research Association, Toronto, Ontario, Canada, 1978.

This study examines experimentally the differences among four class sizes ranging from 16 to 37 pupils. Sixty-two grades 4 and 5 classes in 11 schools in Toronto participated in the study. The study investigated the effects of class size on teachers' expectations about the effects of specific class sizes; the attitudes and opinions of students, teachers, and parents; student achievement in reading, mathematics, composition, and art; the academic self-concept of students; and a variety of classroom process variables. The data indicate that varying class size in these two grades resulted in few changes in classroom functioning or in pupil achievement, except in acquisition of mathematics concepts. It is easy to conclude that reducing class size is perceived as beneficial by teachers. Students' attitudes toward school, however, are unlikely to change; neither are teachers' instructional styles.

Templeton, Ian. **Class Size.** Washington: National Center for Educational Research and Development, 1972. ERIC Document ED 066779.

This review surveys the current literature dealing with the effect of class size on both school finance and educational quality. The literature cited reflects a general agreement on the telling impact of class size on school budgets. However, the material gives little evidence of uniform agreement on the effect of class size on educational quality, be it measured by student achievement or by other standards.

Thompson, Sydney. **Class Size.** ACSA School Management Digest, Series 1, No. 12. San Francisco, California: Association of California School Administrators, 1978. ERIC Document ED 154571.

While the desirability of small classes seems an article of faith among educators, a review of the research indicates that class size in itself has rarely shown a substantial effect on educational achievement. The research itself has been flawed by the impossibility of determining or measuring all the variables that changes in class size can affect. It may also be true that the positive effects attributed to smaller classes are not translatable into testable outcomes. In the end, educational goals, instructional strategies, and related contextual matters may be most important in determining optimum class size. Smaller classes require greater staffing, which could help

satisfy teacher associations in a time of declining enrollment, but they also raise costs. A weighting system that favors students needing extra attention may be one way of making class size policies flexible.

Ward, William H. **A Test of the Association of Class Size to Students' Attitude Toward Science.** Washington, Natural Science Foundation, 1975. ERIC Document ED 148633.

Analysis of data, collected by the Minnesota Research and Evaluation Project during 1972, on high school biology, chemistry, and physics classes from 12 states in 3 regions of the United States showed no association between class size and student attitude toward science. Potential effects of teachers' attitudes toward science and students' achievement in science were compensated for. A slight correlation was found between cognitive achievement and class size. A moderate correlation was found between achievement in science and attitude toward science. Student and teacher attitude toward science was measured with the Science Attitude Inventory (SAI). Student achievement in science was measured with the Test of Achievement in Science.

Woodson, Marshall S. "Effect of Class Size as Measured by an Achievement Test Criterion," **Institute of Administrative Research Bulletin,** VIII (February 1968). ERIC Document ED 021 320.

This study examines some effects of class size upon pupil achievement by statistical comparisons of student achievement tests in 95 school systems. Areas investigated include (1) whether a measurable relationship can be found between the size of classes in a school district and the academic achievement of the pupils in the district, (2) whether the relationships between class size and scholastic achievement are the same for pupils of different academic potential, (3) whether the size-achievement relationships are the same in various subject areas, (4) whether magnitudes of the size-achievement relationships vary when different kinds of class size measures are used, (5) whether the size-achievement relationships are the same for districts of different size, and (6) whether the size-achievement relationships are the same from grade to grade. Evidence leads to the conclusion that there is a small inverse relationship between academic achievement and class size which is subject to qualifications discovered in investigating areas two through six. A number of complex factors tending to distort or color the relationships were discovered.

Wright, Edgar N. and others. **Effects of Class Size in the Junior Grades.** Toronto: The Ontario Institute for Studies in Education, 1977. ERIC Document ED 147923.

This study investigated the differences between different sized classes in grades four and five of Toronto schools. Teachers and students from 11 schools were assigned to 34 classes of either 16, 23, 30, or 37 students (class size could vary by 2). All students were in grade four during the study's first year and in grade five during the second year. Questionnaires and attitude scales were used to measure teachers' expectations and attitudes, students opinions and attitudes toward their classes, and parents' opinions. In addition, student achievement in the areas of reading comprehension, vocabulary, mathematics problem-solving, mathematics concepts, art, and composition was measured, and students' academic self-concepts were assessed. Results of the study showed that varying class size produced few changes in classroom functioning, and most differences between class sizes were relatively small. Sudents were addressed as individuals significantly more frequently as class size was reduced below 30. Other differences included increased mathematics concepts scores in classes of 16, increased verbal participation in classes of 16 or 23, more noise in classes of 16 or 23, more frequent reading instruction in classes of 16, and increased complaints about lack of art instruction in classes of 37.

## I. ADMINISTRATION AND ORGANIZATION, continued

### B. FISCAL MANAGEMENT

**Administration of the School District Risk Management Program,** California State Department of Education, 1977.

This manual is designed to provide to the governing boards and administrators of school districts information that they may use to advantage in developing, administering, and evaluating the district's risk management program. Topics discussed are as follows: 1) statutory provisions relating to insurance; 2) insurable values; 3) fire insurance; 4) liability insurance; 5) student accident insurance; 6) vehicular insurance; 7) fidelity bonds; 8) other types of property insurance such as open stock burglary, safe burglary, boiler insurance, glass breakage insurance; 9) the package policy, 10) workers' compensation insurance; 11) group employee benefits; 12) self insurance. The appendixes include 1) suggested inventory procedures, 2) sample inventory form for an elementary classroom, 3) a form for listing school district insurance policies, and 4) tax sheltered annuities agreement. In conclusion, a glossary and an index are provided.

Baird, Robert N. and others. **Political Fragmentation and the Demand for Educational Services: An Economic Analysis.** Washington: National Institute of Education, 1973. ERIC Document ED 105587.

Major inequalities in the level of educational expenditures per student among school districts have been cited as an indication of the need for structural reform of the public educational system. The purpose of this research project was to see if market structure has any effect on the output of public educational services, and, if so, to see

how this effect would influence the probable outcomes of the major reform proposals. In order to carry out this project, a three equation econometric model of the market for public school teachers was specified and estimated. This market was selected because teachers' salaries are the largest single component of costs for the average district and because the quality of teachers determines the quality of education offered. Results show that the degree of "competition" among school districts is positively associated with both the revenues appropriated for education and the wage paid to the instructional staff. The study concludes that some proposals for educational reform would, in the long run, decrease the total output of the educational sector.

Bourret, Marjorie. "Cuts Will Be Muscle and Bone," **California School Boards**, (July/August, 1978), 20-21.

Brown, Oliver. "Pages and Pages on How to Cut School Costs—Wisely," **American School Board Journal**, CLXV (October, 1978), 22, 24-26.

Campbell, Alan K. **The Politics and Economics of the Future Financing of Public Education**, paper presented at the Institute for Chief State School Officers, Jackson Hole, Wyoming, 1974.

Chambers, Jay G. **A Model of Resource Allocation in Public School Districts: A Theoretical and Empirical Analysis.** U.S., Educational Resources Information Center, ERIC Document ED 123718.

This paper formulates a comprehensive model of resource allocation in a local public school district. The theoretical framework specified could be applied equally well to any number of local public social service agencies. Section 1 develops the theoretical model describing the process of resource allocation. This involves the determination of the demand for school inputs, the salaries of school personnel, and the level of local educational expenditures. Section 2 is a presentation of the empirical results of estimating these sets of equations on a sample of California public school districts. Some of the issues investigated in the empirical analysis include the price and income elasticity of the demand for teachers, the effects of tenure on the demand for equilibrium salaries of teachers and public school administrators, the difference between the effects of changes in community income and federal and state grants-in-aid on local school spending, and the compensatory effects of grants-in-aid on school spending, the demand for school inputs, and salaries of school personnel in high and low income school districts.

Clement, Meredith O. and Alan N. Gustman. **Factor Cost Differences, Educational Equality, and Funding Decisions in Public Education.** Washington: National Institute of Education, 1975. ED 133811.

This study examines the potential effects of structural characteristics of teacher labor markets on attempts to provide equal educational opportunity by revising state educational finance systems. After presenting some crude data on teachers' salaries and current per-pupil spending, the authors present a four-step analysis. First, they specify a model of the labor market for teachers and then derive a formulation for the reduced form wage equation. Second, they estimate the wage equations for teachers from data for the 83 largest U.S. cities and the 48 contiguous states. Third, they use these wage equations to predict the wage differentials for different cities and states that would exist if teacher demand variables were held at their average values for the entire sample, while teacher supply variables were left free to vary. Finally, they explore the policy implications of their findings and conclude that no ideal way of providing equal educational opportunity exists.

**District Paid Insurance Programs in California School Districts, 1977-78.** State Department of Education, Sacramento, 1978. ERIC Document ED150741.

This publication presents 1977-78 data on employee insurance programs provided by 1,078 California school districts and county offices of education that responded to a statewide survey conducted by the California State Department of Education. Individual school districts are listed alphabetically within categories according to the type of district and its level of average daily enrollment. County offices of education are listed after the school districts and are arranged alphabetically. Table 1 contains the annual dollar amounts paid by school districts for coverages provided to each certified and classified employee. Three general categories are used: 1) amount paid for employee only, 2) amount paid for employee and one dependent, and 3) amount paid for the employee and two or more dependents. Tables 2 and 3 contain summaries of the types of coverage for which the responding districts make contributions.

Donham, John O. "Cost Analysis by Grade: A Better Way to Financial Management," **Independent School Bulletin**, XXXIII (October, 1973). 15-17.

Author presents a more effective manner for determining specific educational costs - costs analysis, whereby the cost of educating a student is decided grade by grade. Pro and con arguments are considered.

Fram, Eugene H. "What to Do Before and After Budget Cuts!" **Training and Development Journal**, XXXII (January, 1978), 40-5.

A marketing and management professor advocates the use of a marketing approach for industrial training

personnel during a period of recession. He states that marketing rather than just salesmanship is needed to promote training programs for lower as well as upper management.

Gonder, Peggy. **Cutting Costs: Successful Ways to Reduce School Expenditures.** Arlington, VA: National School Public Relations Association, 1977. 65pp.

**Group Health Insurance Plans for Public-School Personnel, 1964-65.** Washington: National Education Association, 1966.

**How Businessmen Have Improved the Efficiency of the Public Schools.** Chicago: King and Associates, 1968.

McGlothlin, Don C., "Is Your District REALLY Trying to Stretch Its Shrinking Dollars?" **American School Board Journal,** CLIX (August, 1971), 21-22.

McNeil, John D. "Think Shrink: Four Approaches to Reducing School Costs," **Phi Delta Kappan,** LVII (November, 1975). 191-92.

Describes four approaches to cost cutting that are offered to stimulate thinking in the direction of thrift: Manage class size in the interests of both learning and economy; spend less for salaries; eliminate irrelevant goals, activities, and arrangements; and reconsider building needs and use.

Ocasek, Oliver. **The Rationale for General Federal Aid to Education.** Paper presented at National Education Association Annual Conference on School Finance, San Francisco, California, 1970. ERIC Document ED 042245.

Citizens at the local and State levels can no longer meet the budgetary needs of schools. The most powerful alternative resource is the Federal Government. However, Federal funds are encumbered by a plethora of restrictions, riders, rebates, and redundancies, and as it now exists, Federal aid bypasses what is perhaps the most important element in education - the classroom teacher. The NEA supports Federal legislation, such as the General Federal Assistance Act, that would provide general aid to States. This bill distributes to the States $100 per school child, half of which sum must be allocated to increasing teacher salaries. Such a plan preserves local control in education and puts Federal aid where it is needed most - in the general operating budget.

"One Hundred Ways to Cut Costs in Your School System," **American School Board Journal,** CLXV (October, 1978) 37-45.

Owen, John D. "The Distribution of Educational Resources in Large American Cities," **Journal of Human Resources,** VII (Winter, 1972), 26-38.

Podesta, Victor J. **What the Board Needs to Know About Insurance.** U.S., Educational Resources Information Center, ERIC Document ED 064768. 1971.

This speech describes local school board concern over rising insurance costs, suggests an insurance pool for New Jersey public schools under Department of Education Control, and discusses other insurance matters of concern to school boards. The author observes that a State Department sampling of insurance brokers who carry the bulk of student accident insurance reveals that (1) some commercial carriers do not want to write school insurance coverage, (2) sports program coverage is more comprehensive today that it was two years ago, (3) football is a big concern and the "excess provision" (that requires the carrier in situations where privately purchased insurance covers injuries to pay only excess expense not so covered) is becoming more accepted, and that (4) rates vary among school districts according to the claim experience of the district.

Prescott, Donald R. **Strategies Employed in Coping with Burgeoning Enrollments, 1969-70.** Minneapolis: Educational Research and Development Council of the Twin Cities Metropolitan Area, Inc., 1970. ERIC Document, ED 061 581.

This report identifies strategies and practices that school districts might employ as they seek ways to cope with increased enrollments and rapidly rising costs. Among the practices discussed are (1) intensive space utilization, (2) community classrooms, (3) "Schomes"—schools in homes or apartment buildings, (4) rented classroom space, (5) extended school day, (6) double sessions, (7) busing, (8) rotated or staggered four-quarter plan, (9) 45-15 plan, and (10) extended school year acceleration programs. A bibliography is also provided.

**A Summary of the Educational Implications of Budget Reductions in the Unified School Districts of Riverside County, CA,** U.S., Educational Resources Information Center, ERIC Document ID 003 039. June, 1972.

Tron, Esther O. and others. **Selected Papers in School Finance: 1975.** U.S., Educational Resources Information Center, ERIC Document ED 135062, 1975.

The three papers in this volume describe exploratory efforts to adjust state aid to local school districts so as to reflect differences in local costs unrelated to school program content. Each study is limited to an analysis of relevant data for one of the three states considered - Michigan, California, and Florida. The underlying assumption is that one dollar in state aid or other revenue does not purchase the same amount of educational service throughout a state because of differences in local prices. The problem addressed is, can states adjust educational aid for local cost differences? The studies are technical as they center around theoretical and statistical analysis for selecting the most reliable variables for which data are available and which are associated with interdistrict differences, primarily teacher salaries. One major problem is in determining which district features are supply-related variables and which are demand-related. Another problem concerns the amount of variation in prices paid that can be traced to features or variables included in the analyses.

Wilson, L. Craig, **School Leadership Today: Strategies for the Educator**. Rockleigh, New Jersey: Allyn and Bacon, 1978.

I. ADMINISTRATION AND ORGANIZATION, continued

C. OPERATION AND MAINTENANCE

Abramson, Paul. "Seventh Annual Maintenance and Operations Cost Study," **American School and University**, L (March, 1978), 36-8, 40.

Despite continually rising costs of fuel and other utilities, the cost of maintenance and operations in public school districts is not rising as quickly as the general cost of education. A state-by-state cost comparison is included.

**Air Conditioning for Schools** New York: Educational Facilities Labs, 1971. ERIC Document ED 050 469.

This pamphlet advocates air conditioning to improve educational productivity. The physiological effects of thermal environment are explained and educational experiments cited to substantiate the benefits of air conditioning in promoting learning. The necessity and economy of air conditioning for schools with large open-space learning areas and for those with year-round usage is emphasized. Air conditioning as part of a school's modernization process is also discussed.

Beerman, Albert L. "Energy Conservation Plan for the Public School," **Modern Schools**, (May, 1977), 8-9.

A comprehensive energy management program contains these basic parts: a plan with responsibility for performance, a system for monitoring and evaluating the results, and feedback to make sure the savings are maintained.

Clinchy, Evans and others. **Schools: More Space/Less Money**. New York: Educational Facilities Labs, 1971, ERIC Document ED 060 529.

Discovered or "found" space in a school system most often appears as (1) space that a school sytem already owns in its outdated buildings and which is being used inefficiently; and (2) space lying close at hand in warehouses, factories, industrial plants, or in little-used public buildings. Found space is one solution to the problem of providing needed school space despite an inability to raise money to build new schools. Many school systems are exploring economical alternative solutions to the school space problem that would provide new or modernized old space at a reduced cost, more space or better space for the same amount of money, greater use out of existing space, and less expensive alternatives to conventional school space. This document collects all the alternatives known to EFL that appear to be actually working or that have been planned to help solve school problems.

Eaton, Maxwell. "Setback vs. Shutdown: The Case for May," **American School and University**, XLIX (July, 1977), 36, 38.

Analysis of costs proves that a complete shutdown in May might conserve more fuel than an extended winter vacation.

Sanders, Frank Jr. **Indiana School Transportation: A Review of Policies, Procedures, and Costs**. Indiana State Dept. of Public Instruction, Indianapolis, 1968. ERIC Document ED 043935.

This detailed report and analysis of school bus transportation in Indiana is divided into the following topics: transportation policies; bus utilization; the bus driver and his terms of employment; bus ownership; insurance, storage, maintenance, and fuel costs; bus ownership and costs; and the transportation director. A strong case is made for further studies, analyses, and reports dealing with bus transportation—particularly those that emphasize transportation policies and costs. Numerous tables and graphs are used to report study findings.

I. ADMINISTRATION AND ORGANIZATION, continued

D. PLANNING

Bangart, Frank W. and Albert Trull. **Educational Planning.** New York: Macmillan Publishing Company, Inc., 1973.

Bureau of Planning. **Problem Solving in Education.** Trenton, New Jersey: Department of Education, 1977.

Dror, Yehezke, "The Planning Process: A Facet Design," **Ventures in Policy Sciences.** New York: American Elsevier Publishing Company, 1973.

Gallup, George H. "The 10th Annual Gallup Poll of the Public's Attitudes Toward the Public Schools," **Phi Delta Kappan,** LIX (September, 1978), 33-45.

Golladay, Mary A. and Jay Noell. **The Condition of Education.** Washington: National Center for Education Statistics, 1978.

Kaplan, Bernard A., Glenn Tecker, and Jean Pundick. **Goal Development.** Trenton, New Jersey: Department of Education, 1976.

Kaufman, Roger. **Educational System Planning.** Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1972.

Meeth, L. Richard. "Functional Long-Range Planning: Purpose and Process," **Liberal Education,** LIII (October, 1967).

Pack, Kenneth. **Comprehensive Planning in Education.** Trenton, New Jersey: Department of Education, 1974.

Pundick, Jean, Betsy Barnard and Martine Brizius. **Needs Assessment in Education.** Trenton, New Jersey: Department of Education, 1976.

Temkin, Sanford, Michael Marvin, Hsuan Delorme, and Herbert Demby, **Handbook of Comprehensive Planning in Schools.** Englewood Cliffs, New Jersey: Educational Technology Publication, 1975.

U.S. Department of Health, Education, and Welfare, Education Division. **Projections of Education Statistics to 1984-85.** Washington: Government Printing Office, 1976.

I. ADMINSTRATION AND ORGANIZATION, continued

E. SALARIES AND FRINGE BENEFITS

Alexander, Arthur J. **Teachers, Salaries, and School District Expenditures.** Santa Monica: Rand Corporation, 1974. ERIC Document ED 100044.

This report investigates the relationship between total school district expenditures and expenditures on teachers in order to assess how increased budgets for public education might be spent. Specifically, it examines the budget share going to teachers as it is reflected in the ratio of teachers to pupils, the salary schedule, and the distribution of teachers by education and experience. The study uses census, financial, and school district information for 602 California school districts for the census year 1970 and the school year 1971-72. Through the use of regression equations for each school district, salary schedules were broken down into three structural elements: starting salary, annual increments for additional experience, and annual increment for educational credits beyond a B.A. degree. In 92 percent of the school districts, these three variables accounted for more than 98 percent of the variance in salaries in the schedules. The principle statistical results indicate that expenditures on teachers rise at a rate less than proportional to total expenditures, that salary schedules are relatively insensitive to total expenditures, that the distribution of teachers by experience and education appears to vary with total expenditures, and that the teacher-pupil ratios are especially sensitive to total expenditures.

Carroll, Stephen J. "School District Expenditure Behavior," **Journal of Human Resources,** XI (Summer, 1976), 317-27.

The study focuses on the behavior of local school districts in allocating their budgets among teachers, other professional educators, support personnel, and nonpersonnel inputs. The results indicate that districts' allocative behavior at the margin is quite different from their average allocative behavior.

Dorrange, George. "Tax Sheltered Annuities—Good for School Employees?" **School Business Affairs,** XLII (February 1976), 45-46.

Edwards, Bert T. "Reassess Your Fringe Benefits—Says CPA," **School Business Affairs**, XLII (January, 1976), 7-10.

Discusses various employee fringe benefit programs and suggests possible ways to ensure that such programs operate in the most efficient and least costly manner.

Fogel, Walter and David Lewin. "Wage Determination in the Public Sector," **Industrial and Labor Relations Review**, XXVII (April, 1974). 410-431.

Comparative statistics are used in this study to show that wages in the public sector tend to be higher than in the private sector for most blue collar jobs and lower level white collar jobs. However, salaries are usually lower in the public sector for managerial and professional occupations.

Gerwin, Donald. "An Information Processing Model of Salary Determination in a Contour of Suburban School Districts," **American Educational Research Journal**, X (Winter. 1973). 5-20.

Describes research, supported by a U.S. Office of Education grant, and conducted in Milwaukee County, Wisconsin, suburban school districts.

Giuntoli, Rex D. **Effects of Teacher Organizational Membership on School Expenditures and Policies in Illinois.** Normal: Illinois State University, 1971. ERIC Document ED 064236.

The purpose of this study was to determine if there was a relationship between the organization representing the teachers at the bargaining table and a) the salary paid to teachers, b) the ratio of items of school districts' internal budgets, and c) the policies associated with teacher working conditions in school districts in the state of Illinois. A questionnaire, mailed to the school districts with 750 or more students, requested information pertaining to the negotiation process and fringe benefits in monetary amounts and for a copy of the 1968-69 contractual agreement between the teacher organization and the board of education. Information from the Office of the Superintendent of Public Instruction showed internal budgetary amounts, assessed valuation data and teacher salaries. The chi square statistical procedure was used to analyze categorical variables such as educational practices. Multiple linear regression was used to analyze continuous variables such as wealth of the school district, size of the school district, and mean years of teaching experience of the teachers. The residuals of the multiple regression were then used to conduct a one-way analysis of variance. The study indicated that a) future administrators had better be prepared for some "hard" negotiating when they accept positions as superintendents, b) professional negotiations involve non-monetary as well as monetary concerns, and c) the decline in the teacher job market and in financial support in education will place a greater emphasis on job security.

Governor's Education Study Committee. **Staff Report to the Governor's Educational Study Committee and Report to the Governor by the Governor's Education Study Committee.** Baton Rouge, La.: Governor's Education Study Committee, May, 1975. ERIC Document ED 108296.

The Governor's Education Study Committee in Louisiana has compiled this extensive report covering teacher salaries, financing public education, teacher certification, pupil-teacher ratios, and the professional literature on merit pay, differentiated staffing, and accountability. Using data from a statewide survey of teachers and administrators and comparative data between Louisiana and other states, final recommendations were adopted: (1) that the legislature enact a new state teacher salary schedule granting increases; (2) that teacher certification be based on professional development and financial inducement; (3) that other school employees be granted salary increases; (4) that payment be made for additional inservice days; (5) that state payment for nondegree teachers be eliminated; (6) that a uniform policy for granting credit for teaching experience be adopted; (7) that additional pay for post-master's degree work be only for planned programs; and, (8) that consideration be given for a statewide insurance plan for teachers. Extensive tables and discussion provide supporting data and details of the recommendations.

Harting, Roger D. and John W. Alspaugh. "Using the Computer to Analyze Teacher Salary Proposals," **Journal of Educational Data Processing**, XII (October, 1975), 43-49.

The computation of the cost of various pay proposals may be reduced to a series of mathematical formulas that may then be utilized in conjunction with an electronic digital computer to quickly and accurately determine the maximum salaries payable with a given amount of funds.

Hinman, Stanley B., Jr., "Social Security—Its Application to Negotiations," Chapter 3 of **Personnel Management Institutes**, 1975. ERIC Document ED 116332.

Many school boards are paying for certain fringe benefits that could be utilized to offset some of the costs of other fringe benefits. Perhaps the best example of this is the disability portion of Social Security. Persons disabled for more than one year may collect Social Security benefits equal to what they would receive on retirement at age

65. Yet many school district contracts grant sick leave accumulations in excess of one full school year. Districts should consider offsetting accumulations of more than a year with Social Security disability payments or any state disability payments. Further, each school district should inventory all the fringe benefits it provides to determine if there are any instances of double payment for the same type of benefit.

Loren, Parke B. and Jeffrey M. Elliot. "Teacher Salaries and the U.S. Economy," **Phi Delta Kappan**, LVI (April, 1975), 546-47.

Proposes tying teachers' salaries to the nation's per capita personal income to maintain teacher income while reducing the annual friction of collective negotiations.

Mahdesian, Zaven M. "How to Tell What Next Year's Teachers Will Cost Your Board," **American School Board Journal**, CLVII (December, 1969), 15-18.

Given the distribution of staff on the salary schedule and the index of salaries to be paid, these tables provide a method that allows officials to determine what it will cost to raise the starting salary by any given amount, what the average increase will be, and what the average salary will be for total staff and subdivisions.

Mitchell, Carolyn S. "The Consumer Price Index and Salary Negotiations," **CABE Journal**, (February, 1975). ERIC Document ED 105606.

This report discusses use of the Consumer Price Index (CPI) to compute cost-of-living adjustments for wages and salaries in general and teachers' salaries in particular. A number of tables and graphs compare average annual increases in the national CPI, the Boston area CPI, the New York-New Jersey metropolitan area CPI, and pay increases for other professional and industrial employees. Although many of the statistics apply specifically to teachers in Connecticut, most of the discussion applies to other areas as well. The author considers the pros and cons of tying salary increases to the CPI and conclude that, although the CPI is a useful indicator of economic trends, it should not be used as the sole basis for salary determination.

"Paycheck Spot Check," **Grade Teacher**, LXXXIX (Febraury, 1972), 32, 36.

This article deals with the effects of inflation and the New Economic Policy in the United States on teacher salaries, educational expenditures and student-teacher ratios.

Reiter, Herbert D. "Teacher Compensation and Its Determinants," **APSS Know How**, XXV (March, 1974). 1-4

Examines the relationship among environmental influences, per pupil expenditures, and teacher salaries and debates the question whether collective negotiation or environmental influences are the prime determinant of teacher salaries.

Srb, Jozetta H. **Communicating with Employees about Pension and Welfare Benefits.** Ithaca, N.Y.: Cornell University, 1971. ERIC Document ED 066604.

The purpose of this report is to examine some of the problems of communication with employees about pension and welfare benefits. Issues discussed relate to (1) employees' attitudes toward benefits and benefit communication, (2) the structure of private benefit programs, (3) the case for fair labeling, and (4) the trend toward statutory criteria for benefit communication. Included is a composite of proposals for benefit communication that have appeared in or been inferred from the literature and employee benefit protection acts over the last decade.

Solley, Paul M., "Extra Pay for Extra Duty", **Today's Education**, LVIII (May, 1969), 54.

Stieber, Gertrude N. and Julia A. Bushey. **Wages and Salaries Paid Support Personnel in Public Schools, 1975-76.** Arlington, Va.: Educational Research Service, Inc., 1976.

This publication is part 3 of a three-part report on the 1975-76 Educational Research Service National Survey of Salaries and Wages in Public Schools. This volume reports 1975-76 school year data on salaries or annual earnings for five selected clerical positions, as well as hourly wage rates of instructional teacher aides, noninstructional teacher aides, building custodians, cafeteria workers, and bus drivers. The survey collected data on salaries scheduled and salaries paid for 22 selected professional positions and 10 selected support positions in public school systems throughout the United States. The sample for the survey was randomly selected from all public school systems enrolling 300 or more pupils. The 742 responding school systems reported data covering approximately one-third of all public school employees. Salary data in each volume are presented and analyzed according to four categories of school system enrollment, four levels of per-pupil expenditure, eight geographic regions, and for each individual school system arranged alphabetically by state.

Sullivan, Joan P. **Cost-of-Living Adjustments in Teacher Contracts: Pros and Cons.** Arlington, Va.: Educational Research Service, Inc., 1975. ERIC Document Ed 114971.

This publication summarizes the history of cost-of-living (COL) adjustment clauses in salary contracts in private industry and the teaching profession, and then discusses the pros and cons of including COL clauses in teacher contracts. The merits of COL clauses are examined from the viewpoints of both employees and employers. Included are a number of statistical tables and graphs that illustrate recent trends in the consumer price index and demonstrate the impact of COL clauses on industrial wage increases. Examples of actual COL adjustment clauses from teacher contracts negotiated in 16 school districts in five different states are presented to illustrate the various types of COL clauses contained in recent teacher contracts. An extensive bibliography of relevent publications is included as well.

## I. ADMINISTRATION AND ORGANIZATION, continued

### F. SCHOOL SIZE

Alkin, Marvin C. and others. **Economy of Scale in the Production of Selected Educational Outcomes.** U.S., Educational Resources Information Center, ERIC Document ED 022 239, 1969.

This study examines the relationship between size of school district (ADA) and several measures of educational outcome (mean and median reading and arithmetic scores at the 5th grade level) while controlling statistically for student and financial inputs (socioeconomic characteristics of communities and dollar expenditure per ADA, respectively). The population consisted of all California school districts with elementary school programs which were within Standard Metropolitan Statistical Areas of the State in 1960. . .The results revealed that neither the financial input variable nor the district size variable showed any significant linear relationship to any of the student output measures. It was concluded that given the equivalent financial resources and comparable socioeconomic characteristics, there is no evidence that greater educational benefits are produced in larger school districts with elementary school programs.

Baird, Leonard L. "Big School, Small School: A Critical Examination of the Hypothesis," **Journal of Educational Psychology**, LX (August, 1969), 253-60.

Baker, James F. "A Study of the Relationship and Educational Effectiveness of Upper Levels of School Size and Selected Student Characteristics and Behavior," **Illinois School Research**, VIII (February 1971), 37-40.

It was concluded there is no consistent pattern from the analysis made in this study that clearly shows superiority of one size of secondary school group over another.

Barker, Roger G. and others. **Big School-Small School. Studies of the Effects of High School Size Upon the Behavior and Experiences of Students.**

Studies were made in Kansas High Schools to determine the effect of school size upon the behavior and experiences of students. The following areas were considered—the school involved in the study, the data gathered from records and research, out-of-school activities, and the place of high school students in the total life of four small towns. The assumption that a rich curriculum, varied extracurricular activities, and good facilities necessarily mean rich experiences for the students is refuted. This refutation arises from the confusion between facilities and experiences. Most of the studies showed that the greatest participation in student government and extracurricular activities, the largest percentage of students assuming leadership positions and responsibility, the most use made of a variety of courses offered, and the greatest involvment in community life came from those small school-small town adolescents. Schools are specialized environments established in order to produce certain educational opportunities and effects. However, without student participation, enthusiasm, and responsibility, the educational process is not fulfilled, regardless of excellent facilities. Therefore it appears that increasing school size, in and of itself, is a relatively ineffective means of achieving richness and variety of education.

Caliste, Edward R. **Do School Organizational Patterns Make a Difference?** ERIC Document ED 116344. 1975.

In order to determine the effect of school organizational patterns on learning and school adjustment, the author conducted a study that compared twelfth-grade students who attended self-contained schools on a K-8 pattern with students who attended self-contained schools on a K-3, 4-6 plan and then a 7-8 departmentalized school. All the students attended the ninth grade in one school and then went to one that used a 10-12 pattern. The results showed that (1) achievement as measured by grade point average was not statistically significant on the T-test at the .05 level; (2) there were few differences in the students' perception of school experiences and those that were found were more related to socioeconomic status and sex rather than to trends that could be attributable to previous school organizational structure; (3) there was no meaningful difference between the students in stability of socioeconomic aspiration level; (4) there was no inhibitory effects of organization patterns in

participation in extracurricular activities; and (5) there was stability of performance within each socioeconomic status classification.

Cashen, Valjean M. "High School Size as a Factor in College Academic Success," **Journal of Secondary Education**, XLV (October, 1970), 256-59.

Chambers, Jay. **An Analysis of School Size Under a Voucher System.** U.S., Educational Resources Information Center, ERIC Document ED 065 881, 1972.

Clements, William H. **Ideal High School Size: A Mirage in the Desert.** U.S., Educational Resources Information Center, ERIC Document Ed 055 689, 1970.

The writer surveys the literature of the school-size controversy: the research and the opinions. The writer "finds much of the latter and very little of the former upon which to draw conclusions. . .A section of the publication is devoted to subjective consideration of school characteristics which often tend to favor small high schools, and which are usually given little attention by writers who favor large schools." Factors discussed include pupil-teacher ratios, curricular offerings, co-curricular participation, transportation, teacher quality and school atmosphere.

Comfort, Allen W. **School District Organization and Student Retention.** U.S., Educational Resources Information Center, ERIC Document ED 148 502, 1977.

An adapted version of the Bidwell-Kasarda model on school district organizational effectiveness was used to examine all 66 school districts in Louisiana in 1974-75. . .Student retention rate was substituted for student achievement as the measure of district effectiveness. . .Results indicated significant effects between pupil-teacher ratios and the district's fiscal resources, parental education level, and rural population, while administrative intensity was significantly effected by size, fiscal resources, and disadvantaged population. . .The only other significant effects shown by the model were between qualifications of the staff and fiscal resources, and between school retention rates and staff qualifications. The model did show fiscal resources had substantial effect on retention rates that were mediated by intervening variables.

Fonstad, Clifton, comp. **What Research Says about Schools and School Districts. . .Factors Related to Effectiveness.** Wisconsin State Department of Public Instruction, Madison, 1973. ERIC Document 085892.

Following an initial narrative report on research in educational planning, twelve summary tables of research findings are provided. These tables offer data on factors related to elementary, junior, and senior high schools; comparative findings between high school size and (1) pupil achievement, (2) per pupil costs, (3) curricular offerings, (4) staff qualifications, (5) extracurricular programs, and (6) miscellaneous factors; factors related to school size in general; educational administrative unit size; and State enrollment guidelines for administrative units. A 140-item bibliography is included.

Great Plains School District Organization Project. **Guidelines for School District Organization.** State Department of Education, Lincoln, Nebraska 1968. ERIC Document ED 024155.

The Great Plains School District Organization Project, approved by the State Boards of Education in Iowa, Missouri, Nebraska, and South Dakota and financed by the Elementary and Secondary Education Act of 1965, had two objectives: (1) To strengthen the State Department of Education, and (2) to seek ways and means of strengthening the Departments by improving school district organization. This report presents the findings and recommendations resulting from the 2-year study. The information for the report came from position papers prepared for the Project staff, from a review of the literature concerning school district organization and from comments and suggestions received from legislative, lay, and professional personnel in attendance at two four-State conferences on school district organization. Fourteen organizational guidelines resulted from the study.

Hickey, Michael E. **Optimum School District Size.** U.S. Educational Resources Information Center, ERIC Document ED 035108, 1970.

The problems involved in determining optimum school district size are discussed and characteristics of inadequate districts are studied. Five criteria of optimum size are described, including (1) scope of program, (2) range of educational services, (3) the community, (4) administrative and instructional staff, and (5) the economic base. Trends in district reorganization, especially decentralization and community control, are discussed and a table is included that summarizes, from research literature, recommendations for optimum size. The conclusion of the report is that size must be viewed as a variable and not as an absolute factor. Situational variables are strong and may profoundly influence the size-quality relationship in a district.

Husacker, Frank L. "The Small School Can Be a Good School", **NAASP Bulletin**, LIV (October, 1970), 1-9.

Jess, James D. **Quality, Equity, Efficiency, Evaluation and Local Flexibility: The Political and Educational Dilemmas of Iowa's Foundation Plan.** Doctoral Dissertation, Drake University. ERIC Document ED 147 079, 1977.

Efficiency (What is received for dollars spent) proved greater in smaller districts (higher per pupil costs); they had better retention, daily attendance, school pride, and parental satisfaction. Evaluation and local flexibility have not been improved. Findings support decentralization of larger units rather than the proposed consolidation of smaller units, and suggest more political and educational attention and credit to Iowa's smaller rural districts for offering quality educational opportunities.

Mayeske, George W. and others. **Correlational and Regression Analyses of Differences Between the Achievement Levels of Ninth Grade Schools from the Educational Opportunities Survey.** Washington: National Center for Educational Statistics, 1968. ERIC Document ED 017600.

School and student body variables such as rural-urban location, number of enrolled students, principal's training, pupil-teacher ratio, school achievement level, socioeconomic status of the student body, and the racial and ethnic composition of the students were all analyzed. Student body variables made a greater relative contribution than school variables to the students' achievement levels, expectations, attitude toward life, educational plans, and study habits. The results of other analyses suggest that personnel expenditure variables may be most important in promoting achievement. Regional differences in the dependence of school achievement on student body home background and racial-ethnic composition were also found. Other findings indicate that the school variables that contribute to achievement may have differing effects upon students from different socioeconomic backgrounds. It is felt that such findings suggest the importance of studying the effect of socioeconomic status on school achievement.

Office of Organization, Analysis and Research. **School Size and Pupil Costs Reviewed for 1974-5.** Albuquerque Public Schools, New Mexico, 1975.

The material contained in this review is a continuation of studies of school size related to per-pupil-costs undertaken in the years 1971 through 1974. The comparisons made in this study have utilized 1974-75 fiscal year salary information as a direct cost factor related to school size. The study tends to confirm previous relationships between school population size and the price of operating the schools as reflected in annual per-pupil-costs. Maximum and minimum enrollment figures are given for elementary schools and junior and senior high schools. Charts and tables display the relationship between size of individual schools and related costs per student.

**Report of the Small Schools Task Force.** Montgomery County Public Schools, Rockville, Md. ERIC Document ED 125 111.

The task force concluded that school size is not the determining factor in the quality of a child's elementary school education. Other factors such as leadership of the principal, ability and dedication of the staff, and community support and involvement may be more important factors. It was determined that operating costs rose rapidly once a school drops below 300 students. Schools that drop below 300 are subjected to a detailed review and analysis that includes the following factors: modernization schedule, availability of space in nearby schools, transportation implications, long-range need for elementary school facilities in the area, articulation with secondary schools, and socioeconomic and racial balance. The committee examined methods of reducing the operating costs of small schools, for instance reducing staff and food service costs. Alternative uses of facilities were also examined. A process of addressing specific small school situations and the board policy on small schools are included.

Sadler, Ronald A. and C.T.K. Ching. **Optimal School Locations in Rural Nevada.** U.S., Educational Resources Information Center, ERIC Document ED 137 035, 1977.

Sher, Jonathan P. and Rachel B. Tompkins. **Economy, Efficiency and Equality: The Myths of Rural School and District Consolidation.** Washington: National Institute of Education, 1976.

There is no strong empirical base to support the assumptions and assertations of school and district consolidation advocates. This article reviews and analyzes this body of evidence and discusses why consolidation has been so popular even in the absence of solid and reliable supporting evidence.

Templeton, Ian. **School Size.** Washington: National Center for Educational Research and Development, 1972. ERIC Document ED 072505.

The documents surveyed in this review are limited in three ways: first, in many cases only the general terms "large" and "small" are used in the discussion of school size. Second, most of the studies deal with secondary schools because there is greater concern with the extent of curriculum offerings at that level. Third, many authors draw

conclusions from studies of school district size. This is understandable because the data available on district size are often more accurate and more complete than those on school size. School district data are used on the assumption that most small districts are in sparsely populated areas and have small schools, whereas the opposite is true for larger districts. This review divides the literature into (1) school size and educational costs, (2) size and student achievement, (3) advantages and disadvantages of small schools, (4) advantages and disadvantages of large schools, and (5) opportunity and actualization factors. Nine of the documents reviewed are available from the ERIC Document Reproduction Service.

Thibeault, Robert J. and others. "The Achievement of Bus Transported Students," **Journal of Teaching and Learning**, II (Jan., 1977), 17-22.

Examination of 40 randomly selected high schools in Montana re:the effect of transportation time and school size on student academic achievement revealed that the time spent on buses did not have a negative effect on learning but that the size of school did seem to have an effect.

Turner, Claude C. and James M. Thrasher. **School Size Does Make a Difference.** San Diego: Institute for Educational Management, 1970.

Since the purpose of the schools is education, school size becomes important if it affects the educational opportunities available to students or the effectivness of the educational program. The rationale for an extremely large secondary school rests on two assumptions—a large school can offer a broader educational program, and costs per student are smaller. Both assumptions are faulty. Some schools with enrollments of only 500 students offer comprehensive programs matching those of schools with enrollments exceeding 3,000. The decrease in cost per student becomes minimal as enrollments exceed 1,000. In addition, smaller schools provide opportunities for proportionately more students to participate in extracurricular activities; maintain less formal and complex lines of communication among students, teachers, and parents; and face fewer charges of depersonalization. In terms of combining educational opportunities with program effectiveness and comprehensiveness, optimum school size appears to be in the range of 700 to 1,000 students.

Wisconsin State Department of Public Instruction, **What Research Says About Schools and School Districts. . .Factors Related to Effectiveness.** U.S., Educational Resources Information Center, ERIC Document ED 085 892, 1973.

I. ADMINISTRATION AND ORGANIZATION, continued

G. YEAR ROUND SCHOOLS

Administrative Research Department. **Financial Implications of the Extended School Year.** San Diego Unified School District, Calif., 1970. ERIC Document, ED 083 698.

This report considers the costs of three types of extended school year programs— all modifications of the quarter system—and compares these costs to the regular program. Compared against the traditional approach are: (1) a quarter system in which students attend three quarters a year and are off one quarter, meaning that 75% of all students are in school at any one time; (2) a quarter program in which attendance for all is mandatory, fall through spring, with summer attendance being optional; and (3) a quarter program in which attendance for all students is mandatory, fall through spring, except for those students attending the optional summer quarter. Conclusions indicate that by extending the school year, space can be saved and capital expenditures postponed. However, plans that bring about classroom savings cost more to operate, and within a few years all capital savings are eaten up in operating costs. A review of the literature, facility use information, classroom data, and attendance calendars are included.

Banta, Trudy W. and others. **Evaluation of the Knox County Extended School Year Program: 1975-76.** Knox County Schools, Knoxville, Tenn., 1976. ERIC Document ED 123575.

A three-year trial of a voluntary quinmester plan for extending the school year began in June 1974 in five Knox County, Tennessee, schools. Curriculum revision, K-12, was the principal thrust of the ESY (Extended School Year) project, but administrators also hoped to relieve overcrowding in the schools and to effect more efficient use of professional staff and physical facilities. During the first two years of the program substantial progress was made toward standardizing curriculum goals and objectives and providing teachers with current instructional resources. However, with summer quinmester attendance on a voluntary basis, 13% of the students attended during the 1974 summer quinmester, and only 11% during the 1974 summer quinmester. Thus, overcrowding during the remaining quinmesters was not substantially reduced, and the additional expense of operating a summer program was not offset by economies effected during the regular school year. Reacting almost exclusively to financial consideration, the local board voted to cut short the extended school year experiment.

Banta, Trudy W. and others. **Evaluation of the Knox County Extended School Year Program. Final Report.** Knoxville, Tenn.: Knox County Schools, 1976. ERIC Document ED 132703.

The Knox County extended school year (ESY) program emphasized K-12 curriculum improvement. During the trial of the ESY scheduling and curriculum changes, there was an increase in English and social studies scores at the high school, an increase at all levels in the extent to which students perceived that individualization of instruction was taking place, no change in average daily attendance (even during the summer quinmester), a decline in the high school dropout rate, an increase in the use of library references, and an improvement in an already favorable attitude toward school at all levels. It was not possible to isolate the effects of ESY in these areas from the effects of other factors. However, the data indicate that ESY was certainly not a negative influence, and in some cases the effect appeared to be quite positive. Parents at all levels and many staff and administrators responded positively to the ESY changes. The planned three-year project was cut short after two years because school board members did not feel the extra expenditures associated with the summer quinmester were justified for such a small proportion of the students (13 percent one summer, 11 the next).

Curry, Jane Helen. **An Analysis of the Reading Achievement Scores of Students Attending a Four-Quarter Elementary School.** Paper presented at the Annual Meeting of the International Reading Association Far West Regional Conference, Honolulu, 1976. ERIC Document ED 134958.

This study investigated the relationship between the number of days spent in an elementary classroom and the reading achievement scores of the pupils. Pupils attending a four-quarter, public elementary school for 200 days a year, kindergarten through sixth grade, were compared in reading with pupils attending school for 175 days per year; scores for a period of four years were analyzed. Of the 38 grade-and-year comparisons made, four comparisons were significant for the control-school pupils and two comparisons favored the experimental pupils. No consistent pattern was revealed which favored the pupils of the 200 day-calendar school.

**ERIC Abstracts: A Collection of ERIC Document Resumes on the Year-Round School. ERIC Abstracts Series, Number 31.** Oregon University, Eugene. ERIC Clearinghous on Education Management, 1973. ERIC Document ED 091798.

Among the advantages of year-round operation of schools over conventional 9-month operations, the documents in this annotated bibliography cite savings in cost and space, increased flexibility of scheduling, and higher teacher salaries. Various year-round plans are discussed and recommendations offered for implementation of a year-round schedule. The listing is complete for all issues of RIE through July 1973 and includes documents processed by this and other clearinghouses. Based on the document resumes in RIE the following information is presented for each document: personal or institutional author, title, place of publication, publisher, publication date, number of pages, ERIC document (ED) number, price of the document if it is available from the ERIC Document Reproduction Service, alternate availability, and the abstract. Documents are listed alphabetically by author and are numbered.

Hayes, Donald P. and Judith Grether. **The School Year and Vacations: When Do Students Learn?** Paper presented at the Eastern Sociological Association Convention, New York, 1969. ERIC Document ED 037322.

A detailed analysis was made of 600,000 New York school children in grades 2 through 6 to ascertain the effects of nonschool periods (vacations) on reading and word knowledge. The Metropolitan Achievement Test was administered to the children in September and April of 2 school years, 1965-1966 and 1966-1967. The schools involved were divided into six analysis subsets according to racial and economic composition. Statistics on reading achievement showed a gap of up to 2.7 years between ghetto schools and relatively rich schools between the second and sixth grades. For word knowledge there was a 2.8-year gap by the end of the sixth grade for the same type schools. The statistics showed that half or more of the differentials in reading and word knowledge achievement were associated with the months the children were out of school. The study suggests that perhaps the formal jurisdiction of the school authorities may prove to be too narrow for the responsibility of developing the reading and vocabulary skills. References are included.

Hentaschke, Guilbert C. and others. "Toward Analyzing the Economic Impact of Changing to a Different School Calendar: Part Two, 'Finding the Study'," **IAR Research Bulletin**, XV (January, 1975), 3, 10-15.

A general strategy for analyzing the costs of year-round schooling is used to analyze cost patterns of 45-15 schools in a large east coast school system. Based in part on the cost study, the school board decided to phase out year-round education in its trial schools.

Howe, Paul H. "Year-Round School Makes Good Business Sense," **American School Board Journal**, CLX (February, 1973). 46-48.

Argues that year-round schools make good business sense by providing (1) a more efficient use of capital investments, (2) an alleviation of uneconomical and undesirable peaks in working and recreation, and (3) a more sensible way of looking at teacher salaries.

Knapp, John L. and others. **45-15 Costs. A Cost Study of Loudoun County's 45-15 Program.** Virginia University, Charlottesville: Tayloe Murphy Institute, 1976. ERIC Document ED 128975.

Two different approaches to cost analysis (cross-sectional analysis and mock-school analysis) both indicate savings under the 45-15 year round school plan used in Loudoun County, Virginia. These methods of cost analysis were used to compare traditional school schedules with 45-15. One middle school and three elementary schools in Loudoun County functioned under a 45-15 plan for two years until new school construction could alleviate overcrowding. This report contains the results of the financial evaluation of that year-round plan, including an analysis of start-up costs. The analysis of cost-effectiveness revealed that savings are likely to be higher in 45-15 middle schools than at the elementary level. The major cost saving was in imputed rent (the translation of capital costs into the same framework as operating expenses). The magnitude of capital cost savings is related to the greater utilization of building space in the 45-15 plan. This report also reviews over 45-15 cost studies conducted for other school districts. In general, the findings of relative cost savings under 45-15 in the other studies is consistent with those reported for Loudoun County.

McCloskey, Gordon. **Year-Round Community Schools: A Framework for Administrative Leadership.** Arlington, VA: American Association of Administrators, 1973. ERIC Document ED 079838.

This text is one of a series of three handbooks, each intended to provide busy educational executives with a brief, practical overview of one major issue or movement. The book describes some of the current circumstances that are giving rise to interest in year-round community school programs, differentiates between plans that incorporate year-round use of facilities and those that provide year-round opportunities for pupils to attend school, and summarizes educational principles supporting the logic of year-round community school concepts. The document also presents a capsule summary of some of the major patterns presently being used for year-round school organization. Some of the plans discussed included the consecutive quarter, multiple trails, trimester, staggered quarter, 45-15 8/9-2, quinmester, and the modified summer school plan. The booklet concludes by examining some of the major obstacles to be overcome in implementing a year-round school program and by defining and analyzing some major administrative tasks involved in year-round community school program planning and organization. Related documents are EA 055 233 and EA 005 281.

Nygaard, Debra D. **Evaluations of Year-Round School Programs. An ERS Research Brief.** Arlington, VA: Educational Research Service, Inc., 1974. ERIC Document ED 087092.

To provide educators with a compilation of available data on the implementation and operation of year-round programs, this publication incorporates reviews of evaluative studies conducted by six year-round programs: the Prince William County, Virginia, 45-15 Plan; the Valley View, Illinois, School District, 45-15 Plan; the Dade County, Florida, Quinmester Plan; the Atlanta, Georgia, Public Schools Four-Quarter Plan; the Becky-David School, Missouri, 45-15 Plan; and the Chula Vista, California, 45-15 Plan. Studies were selected that are relatively thorough in both scope and evaluative procedures and representative in terms of the type of program evaluated and geographic location of the program. Program evaluations are reviewed separately because of the variability in type of program, school characteristics, implementation procedures, measurement tools, and other factors. Most of the evaluations analyze costs; student achievement; and the attitudes of the community, parents, students, and teachers toward the program. Several of the evaluations also discuss administrator attitudes and duties, and one program evaluation considers the effect of their school's year-round program on extracurricular activities. A 40-item bibliography is included.

Parks, David J. **Research on Year-Round Education.** Paper presented at American Educational Research Association Annual Meeting, Chicago, 1974. ERIC Document ED 090 662.

As the implementation of year-round programs in school districts accelerates, the conceptual, promotional, and testimonial literature continues to keep pace, Empirical research on the subject, however, is lagging. The research available consists of feasibility studies, evaluation reports of implemented projects, dissertations, and isolated independent studies. Analysis of this research indicates a preoccupation with the educational achievement are the most frequently considered variables in feasibility studies and evaluation reports. Dissertations cover a broad range of educational subjects, including planning, administrative tasks, characteristics of school districts sponsoring year-round programs, and curriculum change. A model developed to present the systematic impact of changes in school calendars on various societal institutions is the framework for this research literature review.

Powers, Donald. **The Virginia Beach Extended School Year Program and Its Effects on Student Achievement and Attitudes—First Year Report.** Educational Testing Service, Princeton, N.J. ERIC Document ED 109184.

The Virginia Beach City School System has utilized an experimental school year plan known as 45-15. Under this plan, schools remain in session throughout the year and students are assigned to one of four attendance cycles which begin 15 days apart. As a result of the staggered attendance pattern only three groups (cycles) of students are in attendance at any particular time. The primary purpose of this evaluation was to assess the possible negative

side-effects of the new attendance schedule by focusing on student achievement and student attitudes at the end of the first year of year-round education. General conclusions are that students in the fourth, fifth, and sixth grades in pilot schools suffered no adverse effects on achievement in reading or mathematics, nor on attitudes toward learning or school, as a result of year-round schooling. Specifically, data suggests that sixth grade students improve in reading and mathematics, while their attitudes toward learning and school were more positive. Students with poor attitudes toward learning and towards school and relatively high ability students seemed to benefit from year-round schooling. Findings suggest continuance or expansion of year-round education at Virginia Beach.

**A Research Design for Year-Round Education.** Virginia Beach City Public Schools, Va., 1973. ERIC Document ED 113360. See also ED 105 630-633 and ED 109 158-161 and ED 109184.

The School Board of Virginia Beach has conducted a two-year pilot program focusing on elementary school students who attended school 45 days and break 15 days year round. Four principle questions were proposed and researched by various independent agencies: (1) What effect does the 45-15 cycle-attendance year-round operation have on pupil achievement in reading and mathematics? (2) What effect does the 45-15 cycled attendance year-round have on the way pupils feel about school? (3) What effect does the first grade entry under the 45-15 calendar have on reading readiness? (4) What effect does experience with the 45-15 cycled attendance year-round plan have on parent attitudes? In addition, serious attention has been given to the operational and capital costs of the 45-15 experimentation.

Rifkin, N.S. "A Round-Up on Year-Round Schools," **Today's Education**, LXIII (November-December, 1973), 58-64.

Article discussed the development of a new educational calendar that will entail attendance at school all year-round and which will allow for greater student enrollment, educational efficiency, and flexible scheduling.

Scholfield, Dee. **Year-Round Schools.** School Leadership Digest Series. Arlington, Va.: National Association of Elementary School Principals, 1974 ERIC Document, ED 089 390.

The first of a series of 13 monthly reports, this paper reviews the issue of the year-round school—a variety of calendar changes aimed at increasing the educational and economic efficiency of the school system. The author first reviews the major pros and cons of the year-round controversy, focusing on the questions of potential learning benefits to students and money saved on building costs in relation to money spent on additional staff and services. She then investigates the economic and social impact of year-round scheduling on the community as a whole, outlines a method to plan and initiate a year-round plan, and describes several plans already in operation. A selected bibliography is provided.

Smith, Mary Lee and Gene V. Glass. **Evaluation of Year-Round Schools. Cherry Creek District 5. Educational Report.** Bureau of Educational Field Services, Colorado University, Boulder, 1975. ERIC Document ED 145537.

In designing the evaluation of year round schools (YRS) in Cherry Creek, four questions dealing with major concerns in determining the effectiveness of YRS were posed: What are the characteristics of school programs associated with YRS? What is the reaction of parents to the YRS, its inconveniences and conveniences? What are the effects of YRS on student achievement? What are the costs of YRS compared to the costs of alternative scheduling systems? These four questions serve as a framework for organizing the evaluation report. Among the findings are that roughly two-thirds of the parents prefer the YRS to the traditional schedule; when pupils in YRS are matched on intelligence quotient and sex with pupils in traditional schools in the district and achievement test scores are compared, no important differences between YRS and traditional school pupils are observed at grades 3-6 in vocabulary, language skills, work study skills, or arithmetic; YRS and traditional schools have essentially equal operating costs; and converting traditional schools to YRS is cheaper than building new schools or adding to existing buildings.

Smith, Mary Lee and Gene V. Glass. **Evaluation of Year-Round Schools. Cherry Creek District 5.** Evaluation Research Services, Boulder, Colorado, 1976. ERIC Document ED 145538.

Despite an evaluation study that showed no differences in student achievement between students in traditionally scheduled schools and in year round schools (YRSs), school personnel continued to provide anecdotal evidence of educational benefits in YRSs. In this oral testimony, the continuity of the learning process was stressed. Because the student is on vacation for only 15 days, he fails to build up nonschool behaviors that teachers find so disruptive among students who have lived outside the school for three months. This more refined examination of learning opportunity and student achievement included surveys of students and teachers and a comparison of student performance on locally made tests designed to measure the achievement of sixth-grade mathematics students as measured against district goals. Interviews with teachers provided evidence that less post-vacation time was spent reviewing pre-vacation material in the YRSs. Student attitudes about going back to

school, disruptions, and retention were better for students at YRSs than for the control group. There was, however, no significant difference in the achievement between the two groups. Appendixes include the teacher interview schedule, the student questionnaire, and the test given the students.

Smith, Paul J. **A Review of Literature Pertaining to the Year-Round School and Its Implications for the Macomb Community Unity District Number 185, K-12.** Macomb, Illinois, 1970. ERIC Document ED 120968.

This paper reviews the literature pertaining to the economic feasibility, public acceptance, and learning outcomes of year-round schools. Although much of the discussion is applicable to public schools throughout the United States, the author is mainly concerned with determining the suitability of a year-round school plan for the small Illinois school district of Macomb. Information for the study was obtained primarily from books, monographs, periodicals, Educational Resources Information Center (ERIC) microfiche, and materials provided by school districts currently operating year-round schools. A variety of year-round plans are considered, including a three-quarter system plus a voluntary summer program, a three-quarter system plus a summer program for professional personnel, a staggered four-quarter system with each attending three quarters, a four-quarter system with 48 weeks of school for all students, and an overlapping 45-15 four-quarter system. A fairly extensive bibliography of publications related to year-round schools is also included.

A Special Report from the Educational Facilities Laboratories, Inc., "Year-Round Schools: A 'Money-Saving' Idea Is Loaded with Hidden Costs," **Updating School Board Policies,** II (November, 1971), 1-3.

Univer, Irving O. "Can Year-Round Schools Save Money?" **American School and University,** XLVIII (May, 1976), 34-35.

Only a mandatory, staggered-attendance plan offers the opportunity to produce savings when converting a school or an entire district to a year-round plan.

Univer, Irving O. "Year-Round Schools: A New Ball Game for Facility Planners," **CEFP Journal,** XII (May-June, 1974), 4-8.

The mandatory-staggered-attendance plan can significantly increase existing facilities capacity, reduce new facilities capacity requirements, effect substantial capital program economies, offer potential for operating economics, effect fuel-energy savings, and offer both operational and capital busing economies.

Volk, William A. **An Analysis of Differences in Costs among Three School Year Schedules for Lanes Mill Elementary School.** Brick Town Township Board of Education, N.J., 1975. ERIC Document ED100030.

This report is a detailed budget analysis of projected costs of three school calendars, including a 45-15 extended year operation, for an elementary school in Brick Town, New Jersey. The purpose of the report is to estimate the fiscal effects of the 45-15 extended school year operation to determine whether such a method of operation is more cost effective than the conventional school calendar method of operation. Cost estimates for the conventional 180 day school calendar are based on capacity enrollment and actual current enrollment. Results indicate a cost benefit of $17.26 per pupil projected for the extended school year. In addition, there is a $1.5 million potential saving in capital outlays under the extended school year plan.

White, William. **Concept Six Year-Round School Plan.** Paper presented at National Seminar on Year-Round Education, Chicago, 1974.

Concept 6, a new program designed to cope with burgeoning enrollments and a shortage of classroom space in Jefferson County, Colorado, keeps school buildings in use 250 days and divides the school year into six terms of instruction. Individual students attend classses four terms and choose their vacations during the other two. An option for a fifth term is available to those who choose it for enrichment, remediation, or acceleration at no expense. Teachers work the normal 184-day work year, but may choose to teach 225 days when enrollments make it possible. The plan has the effect of producing up to 50 percent more classroom space. A key feature in making Concept 6 desirable to students is the voluntary vacation choice. As many as one-third of the students enrolled may be on vacation at a time. The program should lead to greater individualization of instruction and to a broader range of curricular activities in individual schools. Throughout the district, 80 percent of the parents of school age children and 79 percent of the staff favor the plan. The participation of parents, students, and school staff members on advisory committees should facilitate a smooth, trouble-free transition to the year-round school calendar.

White, William D., "Year-Round Education for K-12 Districts," **Phi Delta Kappan,** LIV (January, 1973), 312-13.

Witherspoon, Ralph L. **Effect of Trimester School Operation on the Achievement and Adjustment of Kindergarten and First through Third Grade Children.** Tallahassee: Institute of Human Development, Florida State University, 1968. ERIC Document ED 020003.

At the Florida State University school, a longitudinal study attempted to find out if kindergarten through third grade children who attended the extended school year of the trimester system showed significant differences in achievement and adjustment as compared with children of a similar mean IQ who attended only during the regular school year. The urban area subjects had these attendance patterns, (1) 38 children attended for three summers, (2) 38 for no summer, (3) 44 for one summer, and (4) 43 for two summers. First, second, and third grade achievement was determined by the Metropolitan Achievement Test and the Developmental Reading Test. Adjustment was evaluated by the Haggerty-Olson-Wickman Behavior Rating Schedules, which used teachers' ratings, and the California Test for Personality. All tests were given each October and May for a three-year period. The Science Research Associates Mental Abilities Test was given to all subjects before Mid-October of the first year. Analysis of variance of the data permitted results to be adjusted in terms of variation due to intelligence. Although the evidence is inconclusive, findings indicate that extending the length of the school year has a negative effect on children's achievement and adjustment. Further trend analyses of the data collected will determine the most critical age levels in relation to school year length. A study will also be made to find out why children do or do not attend summer school. An extensive bibliography is included in this report.

Withycombe, Dick, Ed. **The Rescheduled School Year.** Tigard, Oregon: Oregon Educational Association, 1972. ERIC Document, ED 069 024.

This report is intended as a summative overview of the current research and program information related to the rescheduled school year. As such, it deals with (1) present models of rescheduling, (2) the school vacation, (3) basic comparative cost analysis, (4) busing requirements, (5) curriculum design requirements, (6) career opportunities for professional staff, and (7) conclusions and recommendations. The plans considered are those that limit the number of students in attendance at any one time to less than the total enrollment and those that accelerate completion of school to less than the traditional 12 years by extending the length of the school year. In the first group, the report covers the four-quarter plan, the four-quarter plan with rotating vacations, the twelve-four plan, and the 45-15 plan. The continuous four-quarter plan and the 11-month plan are discussed as representative of the second group. Some of the specific plans representative of a combination of the two principles are discussed: the New York Multiple Trails Plan, the New York Continuous Progress Plan, the Metro-Atlanta Plan, and the Flexible All-Year School Plan. A useful table compares the characteristics of major plans on the basis of the length of the school year and school day; divisions in school year; grade levels; time required to effect savings in classrooms, number of teachers, and dollars; vacations (other than Christmas and Spring Break); advantages; and obstacles to change.

Wollaston, Twila. **Year-Round Education in Pennsylvania. A Status Report on State-Funded Programs.** Bureau of Educational Administration and Management Support Services, Pennyslvania State Department of Education, Harrisburg, 1974. ERIC Document ED 098662.

The Pennsylvania Legislature funded a two-year program to enable interested local schools to conduct exploratory programs on all-year scheduling. Funds were allocated by contract on the basis of the local school's need and readiness to conduct some type of all-year school program or to study the feasibility of such a program. Findings indicate that year-round operation can produce major economic savings if there is a need to construct a new school or an addition to a school. The potential savings in the year-to-year operational budget is less clear. A remedial program that helps prevent students from failing a grade can produce an economic as well as a social savings. An accelerated program can cost more in the short run, but, because a student spends fewer years in school, may not cost more in the long run. An enrichment program will probably cost more than a regular program because of the extra services provided. Year-round programs tend to offer a greater variety of courses and to serve as a vehicle for the implementation of mini-courses and individualized instruction. A flexible year-round program can provide equal opportunity for a more relevant curriculum, a more appropriate instructional process, a more flexible use of time and learning facilities, and a more rational pupil evaluation system.

## II. THE INSTRUCTIONAL PROGRAM

### A. ACHIEVEMENT

Anttonen, Ralph G. and Gail Broome. **A Three Year Study of Children's Achievement and Attitude.** Division of Education, Millersville State College, Pa., 1977. ERIC Document ED 154031.

Three schools in the same district were compared on the basis of achievement and attitude tests given in the third grade in 1974, and again in the third and fifth grades in 1976. Only descriptive statistics were used, since samples were known not to be random. The three schools were identified as a model of individualized instruction, a school with a similar population of youngsters using more conventional instruction, and a school whose children have higher socioeconomic status (SES) and intelligence. The Comprehensive Tests of Basic Skills showed that the school with higher SES children had higher scores on all six tests of Reading, Language, Mathematics, Reference Skills, Science, and Social Studies; but the school that emphasized individualized instruction showed a greater gain from third to fifth grade in reference skills and independent study skills. The findings also support the view that

children in an individualized program had better attitudes towards school and school subjects, as measured by a semantic differential attitude scale and the Faces Test.

Bureau of School Programs Evaluation. **Which School Factors Relate to Learning? Summary of Findings of Three Sets of Studies.** Albany: New York State Department of Education, 1976. ERIC Document ED 126 613.

This report summarizes the results of three studies—the Regression Studies which investigated factors that are at least partly under the control of school personnel, the Outlier Study which used multiple regression analysis to identify schools that were performing either above or below their predicted levels of achievement as computed from nonschool factors, and the Observational Study which involved observation of 14 schools that were identified as above or below predicted achievement in the Outlier Study. Emphasis is given to the relationship between student achievement and school size, expenditures, special programs, traditional versus open education, teacher characteristics, school conditions, and staff attitudes. Summaries of factors associated with high and low achievement are presented along with factors showing ambiguous relationships with achievement and factors not associated with achievement. The most encouraging findings relate to teacher characteristics, staff attitudes, and school practices. The relationships described are not necessarily casual.

Cordova, Ignacio R. and others. **Evaluation of the Second Year (1968-69) of the Sustained Primary Program for Bilingual Students in the Las Cruces, New Mexico Public School System.** Bilingual Program. Las Cruses School District No. 2, New Mexico, 88001, 1970. ERIC Document ED 052855.

Evaluating the 2nd-year K-3 bilingual program in 4 elementary schools this document assessed (1) the increase in achievement level of Spanish-speaking pupils through use of a sustained K-3 program; (2) the student achievement level between bilingual and monolingual programs; (3) the involvement of Spanish-speaking parents as advisors and learners; (4) whether a 12-month 200-day school year serves the learner better than a 180-day regular school year; (5) the increase in measurable mental abilities of Spanish-cultural/linguistic-background children; (6) the enhancement of positive feelings of student self-worth; (7) the development of skills for bilingual-bicultural interaction; and (8) a school curriculum which utilized the culture and language of Spanish-background pupils. Two experimental groups and a control group were evaluated via appropriate forms of the California Short-Form Test of Mental Ability and the Metropolitan readiness and achievement tests, and 4 other instruments. Among the conclusions it was found that females made greater gains than males in language growth, reading, and numerical reasoning; the control group made significant gains in grade 1 but not grade 2; summer instruction appears valuable for bilingual students in reading, word knowledge, and arithmetic; and pupil adjustment and parental-school contacts were insignificant. Four evaluation instruments are appended. Not available in hard copy due to marginal legibility of original document.

DiBiasio, Guy N. "Mastery Learning: Implications for the English Curriculum," **English Education**, IV (Winter, 1973), 106-15.

A basic task for all teachers is to deterine what we mean as "mastery of a subject" and to search for the methods and materials which will enable the largest proportion of our students to attain such mastery.

Donovan, David and others. **Distribution of Educational Performance and Related Factors in Michigan.** Michigan State Board of Education, Lansing, 1972. ERIC Document ED 072088.

The sixth report of the Michigan Educational Assessment Program contains eight educational distribution profiles. Schools and districts were classified into upper, middle, and lower thirds on the basis of the average scores (in grades 4 and 7) in composite achievement and socioeconomic status, and their scores on all assessment measures were charted. The assessment measures were: (1) human resources—such as pupil/teacher ratio and percent of teachers with master's degree; (2) school financial resources—such as local revenue per pupil and State school aid per pupil; (3) student background; (4) school/student performance—attitude measures, basic skills measures, and dropout rate; and (5) school or district size. The purpose of this report was to find whether schools or districts that rank high, in the middle, or low on composite achievement or socio-economic status have a similar rank on other assessment measures. It was found that this is generally true, but certain exceptions and limitations on interpretation are specified. An appendix contains definitions of the educational assessment measures.

Ekstrom, Ruth B. **Teacher Aptitude and Cognitive Style: Their Relation to Pupil Performance.** Paper presented at the Annual meeting of the American Psychological Association, New Orleans 1974 ERIC Document ED 100 496.

This conference paper suggests a promising model, based on a study of elementary school teachers in California, to investigate the relationship between the cognitive characteristics of teachers, their teaching behavior, and the academic success of their pupils. In the research model, two major components which affect student achievement were measured: (1) Teacher knowledge (Knowledge of subject being taught and knowledge of teaching); and (2) Teacher Aptitude (verbal, numerical, reasoning, memory, and kinds of divergent production aptitude). It is hypothesized that certain matches between teacher and pupil knowledge, skill, aptitude, and

cognitive style tend to facilitate pupil learning. A preliminary factor and analysis of the above components indicates that the Teacher Test Battery developed in conjunction with this research model was actually able to measure these structures.

George, Thomas W. "Teacher-Versus Student-Choice of Learning Activities," **Educational Research Quarterly**, II (Spring, 1977), 22-9.

Students functioned at virtually the same level whether the student or the teacher controlled the choice of learning activities. However, students required to perform teacher-specified activities progressed at significantly faster rates than students in the self-selection group.

Goldberg, Miriam L., **Adapting Teacher Style to Pupil Differences—Teachers for Disadvantaged Children**. ERIC Document ED 002 360.

Assumptions presented are—that a pupil's learning is mainly a function of the kind of teaching to which he is exposed, that there is no universally good teacher, but rather a variety of good teachers differentially suited by temperament and training to teaching different groups of students, and that disadvantaged children represent a describable pupil population in need of teachers who are uniquely good for them. Studies are cited which imply that variations in pupil achievement are related to variations in teacher performance and that the same teacher may affect different pupils differently. A hypothetical successful teacher of disadvantaged pupils would—respect pupils and be respected by them, be familiar with pupils' alien culture and understand rather than condemn it, be aware of pupils' family structure, physical environment, ethnic group membership, and language problems, but not expect a low level of achievement. Set high but attainable goals to inspire the pupils and to give them a sense of their own worth, accept test scores as a fair and valid measure of the child's present academic ability while rejecting them as a measure of native intelligence, and thoroughly know the subject matter. To find teachers approaching these model characteristics, school administration should—recognize that disadvantaged children need uniquely prepared teachers, study the personal qualities, knowledge, and skills needed for successful teaching of slum children, develop and test reconstructed teacher education program. Screen candidates to eliminate those without the desired traits, raise the standard of the disadvantaged area teacher by invoking all available reward system, and make the schools more liveable for the teacher, the teaching experience less frustrating, and supervision more professional.

Goolsby, Thomas M., Jr. and Robert B. Frary. **Enhancement of Educational Effect through Extensive and Intensive Intervention—The Gulfport Project**. Washington: National Center for Educational Research and Development, 1969. ERIC Document ED 047012.

Two hundred first grade children participated in an experimental program involving innovative curricula and instructional techniques. A pretest-posttest method of instruction, employing sequenced and structured learning activities, enabled each child to progress at an individual rate and was supplemented by a readiness program. Evaluation of the project was undertaken to determine the effect of generous expenditures, used to modify basic conditions (class size, for example), on achievement levels. Ability and achievement tests were administered to both the experimental and comparison groups throughout the year. Analysis revealed that although the average mental age was 6 months lower for the experimental group, it essentially matched the comparison group on achievement at the end of the school year. If mental age is used as a covariate, the experimental group exceeded the comparison group on 8 of the 10 achievement variables. The effect of other variables, including readiness, sex, father's occupation, integration, grouping, Head Start, and variable interactions on achievement are also reported. The validity of the Metropolitan Readiness Test is discussed in detail and implications of the study are pointed out. Instructional materials used in the project are listed in the appendix.

Hanson, Gordon. **Predictors of Achievement: A Bibliography**. Wisconsin Department of Public Instruction, Madison, 1973. ERIC Document ED 084629.

The seventh in a series of reports dealing with accountability, this bibliography provides the reader with a comprehensive overview of the body of literature, from theoretical model design to the effects of specific factors such as student's self-concept, reinforcement, socioeconomic status, etc The citations are divided into three categories. The first of these sections presents the literature that deals with the topic in a broad, general sense and which covers research, statistical analysis, and model design. The two other sections cover literature on school characteristics and student characteristics. The document is designed to be useful in conjunction with the revised Bibliography of the State Educational Accountability Repository, April 1973 (EA 005 413) and Accountability: a Bibliography, July 1973 (EA 005 455).

Harnischfeger, Annegret and David E. Wiley. "Schooling Cutbacks and Achievement Declines: Can We Afford them?" **Administrator's Notebook**, XXIV (September, 1975), 1-4.

The total quantity of schooling offered to pupils is usually neglected in discussions of the determinants of

educational achievement. Large variations in degree of exposure to schooling exist as do large effects of exposure on achievement.

Harnischfeger, Annegret and David E. Wiley. "The Teaching-Learning Process in Elementary Schools: A Synoptic View," **Curriculum Inquiry**, VI (February, 1976), 5-43.

Presents a model that represents the teacher's activities as consequences of educational policies and of the teacher's own reflections, and at the same time represents the pupil's achievement as the consequence of his activity and experience.

Heim, John and Lewis Perl. **The Educational Production Function: Implications For Educational Manpower Policy.** Ithaca, N.Y.: School of Industrial and Labor Relations, Cornell University, 1974. ERIC Document ED 099254.

This monograph summarizes and evaluates "educational production function analyses"—studies of the relation between inputs and outputs in an education system—in order to aid in educational manpower policy making. In addition, data from New York state school districts and from a large national sample of high school students is subjected to multiple regression analyses for information on the cost effectiveness of different inputs. Inputs which policy makers can influence—teacher characteristics (length of service, graduate training, verbal ability), class size, quality and quantity of school administrators, and use of educational technology—are examined. Comparisons are made of the effect on student achievement levels of spending a fixed amount of money on several different types of school inputs. The study finds that all inputs are not equally productive for all grade levels or all subject matter specialties. For instance, neither teacher experience nor degree affect student achievement at grades K-3; the contrary, however, is true in grades 3-6. Incentive pay might, therefore, best be turned to increasing student-teacher ratios at grades K-3 and bolstered in grades 3-6 at the expense of class size.

Jarvis, Oscar T. **Time Allotments and Pupil Achievement in the Intermediate Elementary Grades.** Houston: Bureau of Education Research and Service, University of Houston, 1962. ERIC Document ED 035063.

Designated time allotments for the various course offerings of the elementary schools have evolved with little research showing that present time allotments are the best possible. The problem of this study was to determine the relationship between varying lengths of class periods and pupil achievement in reading, arithmetic, and language. Mental maturity and achievement tests were administered to 713 sixth grade pupils who attended each of the selected schools for all their intermediate elementary grade education. The study shows that maximum class period lengths resulted in greater pupil achievement in every area tested for those with intelligence quotients of 115 or more. For the average student, longer class periods resulted in significantly higher achievement in the areas of arithmetic and language.

Jennings, Wayne and Joe Nathan. "Startling Disturbing Research on School Program Effectiveness," **Phi Delta Kappan**, LVIII (March, 1977), 568-572.

Jones, F. Goeffrey. **Mastery Learning and Geography: Effects upon Achievement, Retention, and Time-to-Completion.** Paper presented at the Annual Meeting of the National Council of the Social Studies, Chicago, 1974. ERIC Document ED 099280.

This study compares self-instructional mastery and nonmastery treatments of a specially developed geography unit to determine if there were differences in learning, retention, and time-to-testing of high, middle, and low aptitude students. Mastery learning is an alternative which gives lower performing students the necessary additional time to learn while the progress of the higher aptitude student is retarded by withholding of additional learning tasks. Twenty grade 7 classes from Savannah-Chatham County School District, Georgia, were chosen as the experimental population. Mastery and nonmastery units were randomly assigned to classes in each school. Tests were administered to measure the students' learning and retention of the content materials. The results indicated that high and middle aptitude self-instructional mastery treatment students retained more than high and middle aptitude nonmastery students. Middle aptitude mastery students learned more than middle aptitude nonmastery students. There was no difference between learning and retention for low aptitude students across treatments. Therefore, the difference between learning and retention for low aptitude students across self-instructional mastery units were used. The educational implications were that mastery treatment facilitated superior achievement at the price of less work covered in the time period, and that mastery treatment for low aptitude students could be effective only with close and careful teacher feedback instead of self-instruction.

Karweit, Nancy L. **Is Differential Access to School an Important Factor in Student Outcomes?** Report No. 195. John Hopkins University, Baltimore, Center for the Study of Social Organization of Schools, 1975. ERIC Document ED 110534.

This paper explores whether differential access to school, as measured by student attendance, length of school day, and school term, is an important determinant of student outcomes (achievement and educational plans). It is stated here that most of the "school effects" research has utilized school level variables for school resources, assuming that each student benefits equaly from these resources. One source of variation around these mean school

values is simply the exposure that students have to these resources. This research it is held, attempts to incorporate such variation. Data from the Equality of Educational Opportunity survey for the sixth and twelfth grades and from a survey of 20 high schools were used. The latter data set made available both a student ability measure and attendance information drawn from school records (and not from student self-report data). The discussion first focuses on the school as the unit of analysis. In this discussion, some organizational features of the school which might influence attendance are examined. Later in the discussion, the individual becomes the unit of analysis, and the technique of analysis of covariance is used to control for differential school level variables. Individual attendance then is viewed as a mediating variable between individual background factors, school factors, and achievement outcomes.

Lamber, Philip and others. **Classroom Interaction, Pupil Achievement and Adjustment in Team Teaching as Compared with the Self-Contained Classroom.** Madison: Wisconsin University, 1964. ERIC Document ED 002 569.

Explored are teaching and learning relationships or forms of classroom interaction in the team teaching arrangement, and the differences between these and traditional classroom interaction with respect to student adjustment and student achievement. An attempt was made to improve the sophistication of educational research instruments. A 2-year team teaching program involving an entire elementary school formed the basis of study. Conclusions were that significant differences in classroom interaction and in student achievement exist between the team and self-contained organizations. But no significant differences were found in personal and social adjustment, in teacher awareness of student characteristics, in absenteeism, in the frequency of discipline infractions, and in changes in the social stucture within the classes organized on a team-teaching basis and those organized on a self-contained basis. Major emphasis was placed on the methodology of research and the analysis of data. Extensive tables are included.

Matthews, Kenneth M. and Carvin L. Brown. "The Principal's Influence on Student Achievement," **NASSP Bulletin,** LX (October, 1976), 1-15.

Factors that affect learning are concisely packaged in this article. It is then pointed out how the school principal as an educational leader can influence the improvement of learning.

Scheuerer, Danil T. and Others. **Placement of Students in Viable Learning Situations through the Use of Achievement Tests and Systems Engineering Rather than through Annual Promotion and Retention. Volume I of II. Final Report.** Melbourne High School, Florida. ERIC Document ED 057068.

This document, the first of two volumes of a final report, describes the various models which were utilized to support the development of a nongraded, phased, secondary school. It also contains the developed objectives which were used in conjunction with the on-going operations research, while Volume II contains the placement instruments specifically developed for the project. It should be noted that the objectives set forth in Volume I are not keyed to the instrumentation detailed in Volume II. See also TM 000 699.

Streeter, Ronald E. and Steven J. Kidder. **The Distribution of Instructional Resources to Students of Varying Ability.** Paper presented at the Annual Meeting of the American Educational Research Association, New York, 1977. ERIC Document ED 137933.

Much interest has been directed toward instructional resources and their effect on student achievement. Results of studies show positive, negative, and no effects of some of these resources on achievement. This paper analyzes the distributions of reading instructional time, materials, and personnel of four New York State school districts with respect to age, grade, and student reading ability, using the student as the unit of analysis. In general, students of low ability received more instructional time than students of middle or high ability, especially when such instruction was provided by a reading specialist or paid aide. Since low-ability students do not achieve as well as high-ability students in spite of the increase in the amount of resources, these resources may appear to have negative effects.

Summers, Anita A. and Barbara L. Wolfe. **Which School Resources Help Learning? Efficiency and Equity in Philadelphia Public Schools.** Institute for Urban and Minority Education, Teachers College, Columbia University, 1976. ERIC Document ED 139847.

This research study of elementary, junior high school, and senior high school students examined the relationship between educational inputs and outputs as a measure of growth in academic achievement. Educational inputs were identified as the socio-economic background of the student, the school climate, and the school resources. Additionally, educational output was evaluated by students' improvement in reading, writing, and arithmetic skills. The sample consisted of 627 elementary students, 553 junior high school students and 716 high school students in 150 public schools. Education input data was obtained from the students' history files and personnel files. Individual students were matched with their teacher's characteristics. Test results were analyzed to relate grade norms, national norms, and family income to achievement. The report concluded that socioeconomic background of the student was an important factor which determined what the student achieved through the school

years. Class size influenced the students' achievement differently at various levels of school. Also, how school resources were allocated did have an impact on pupil performance. The actual multiple regression equation, tables for the three school levels, and a listing of all variables used in the data sample are included in the appendix.

Van Mondfrans, Adrian P. and others. **Comparing Block Scheduling and Traditional Scheduling on Student Achievement and Attitudes.** Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, 1972. ERIC Document ED 064369.

A study of whether the effects of block scheduling on student achievement and attitudes are more advantageous than traditional scheduling was made. The block scheduling treatment involved three required courses on each of four grade levels—freshmen through senior in high school. Interdisciplinary teaching teams were responsible for instruction. The traditional scheduling treatment involved each teacher with three classes of 30-35 students for 40 minutes each day. The basic schedule design involved three teachers, 19-110 students for each grade and subject over a period of 140 minutes. Each team of three teachers met with two groups of students, a morning and an afternoon session. Data from analysis included the scores on objective, teacher-made tests covering the material taught in the instructional units and the ratings filled out by students on their interest and attitudes toward learning. An analysis of variance was performed. Since only two of 30 possible F-ratios were significant when the attitude and interest scores were analyzed it was concluded that the two treatments did not differently affect these variables. The findings of this study suggest several questions concerning the effectiveness of block scheduling. These relate to teacher difficulty in handling the flexibility in time and group size, the importance of time and group size flexibility, and the need for maturity on the part of the learner.

Wang, Margaret and C.M. Lindvall. **An Exploratory Investigation of the Carroll Learning Model and the Bloom Strategy for Mastery Learning.** Paper presented at the Annual Meeting of the American Educational Research Association, Los Angeles, 1969. ERIC Document ED 208841.

A group of students normally distributed in aptitude and given the same instruction will produce a normal distribution of student achievement. It has been contended that if each of five primary variables in learning are optimized for each student, all students should be expected to achieve mastery of the material. These variables are (1) aptitude of student, (2) quality of instruction, (3) ability to understand instruction, (4) perserverance, and (5) time allowed for learning. This study investigated this hypothesis with an individualized learning program (ILP) in which all students were supposed to attain mastery on each lesson before going on in the program. Students in grades two through six were given aptitude test, and their performance in the ILP was compared with the test results. Little relationship between rate of learning and aptitude was found when variables number two, three, and four were ignored or were assumed to be operating at an optimum level for all. Thus, either the variables should not have been ignored or the experimental design in this study was faulty. Aptitude may still be found to be the most important factor in rate of learning.

Weber, Margaret B. **The Effect of Learning Environment on Overt Learner Involvement and on Relevant Achievement.** Paper presented at the Annual Meeting of the American Educational Research Association, New York, 1977. ERIC Document ED 152791.

Previous work by Grannis and Jackson suggested that teachers, learners, feedback sources, instructional sequencing, material format, or other variables may exercise control over the learning environment. It was suggested that the behavioral structure of a classroom can be described in terms of a knowledge dimension, a social dimension, and an authority structure dimension, and that congruence between these dimensions creates a learning environment that is effective in eliciting achievement. The current research investigated the relationship between congruence and learner involvement in the task, and between congruence and achievement at two different levels of mental processing. One hundred fourteen ninth grade algebra students were taught a unit on probability with semi-programmed materials. In two classrooms, the instruction was teacher-paced, and the teacher provided the authority structure of the classroom. In the other two classrooms, the work was individualized and self-paced. Though different distributions of control elicited varying amounts of on-task behavior, in all four learning environments the time spent on task was greater than 85 percent of the total. In terms of achievement, a combination of highly structured learning materials and a highly directive teaching style created the most effective environment both for lower and higher mental processes.

Werts, C.E. and T.L. Hilton. "Intellectual Status and Intellectual Growth Again," **American Educational Research Journal**, XIV (Spring, 1977), 137-46.

To correct for measurement error in the correlation of student status with achievement gain, the simplex model was used. Results supported the authors' hypothesis that status and gain are correlated. Students who start out as low achievers may need more help over time to maintain the same academic growth as higher achievers.

Yost, Michael and others. "Effect on Learning of Postinstructional Responses to Questions of Differing Degrees of Complexity," **Journal of Educational Psychology**, LXIX (August, 1977), 399-408.

Seventh grade students answered questions while reading programmed science materials. For increasingly difficult questions, achievement and time required to complete the unit increased. Post-instruction achievement was higher in groups which answered questions during the unit than those which read additional material but answered no questions.

II. THE INSTRUCTIONAL PROGRAM, continued

B. EARLY CHILDHOOD PROGRAMS

Cage, Bob N. and Peggy Emerson. **The Status of Kindergarten.** Bureau of Educational Research, MIssissippi University, 1973. ERIC Document ED 113044.

This paper attempts to analyze current research on kindergartens, to assess kindergartens' contribution to public school education, and to provide Mississippi legislators and educators with a basis for making decisions concerning a state supported kingergarten program. A chart summarizing legislation relating to kindergarten in the 50 states (through 1972) is presented. At the time of the report Mississippi was one of five states having no state-supported kindergarten program. Research is cited to show the cost-benefit of kindergarten programs and the benefits of preschool education in cognitive, affective, and health areas. Criticisms of preschool education and counterarguments are reviewed, and it is concluded that research to date supports the importance of early childhood education, especially kindergarten. Figures are given for low kindergarten attendance and high drop-out rates in Mississippi schools, and suggestions are made for initiating and implementing a kindergarten program in the state. The operating costs of three alternative programs are examined, and the practical issues of facilities, curriculum, transportation, and personnel are discussed.

Hick, Thomas L. and others. **Effects of Prekindergarten on Three Measures of Cognitive Development.** Division of Research, New York State Dept. of Education, 1977. ERIC Document ED 151402.

As part of a longitudinal study of the New York State Experimental Prekindergarten (PreK), several measures were administered to the four-year-old children in the fall of 1975 and to a sample of the same children in the spring of 1976. Analyses of covariance were carried out on three measures of cognitive development with one of five background characteristic variables used as covariate in each analysis. A significant positive effect of the prekindergarten program was found for two of the measures, the Cooperative Preschool Inventory and the Walker Readiness Test. With one exception, the PreK effect was significant over all levels of the control variables; the PreK effect on Walker scores was greater for children whose mothers had less education. The three measures used in the analyses reported here were the Walker Readiness Test, a 50-item, non-verbal measure of general reasoning; the Cooperative Preschool Inventory, a 64-item measure of achievement in several areas regarded as important for success in school, and the Peabody Picture Vocabulary Test, a measure of the ability to understand spoken English. Analyses of covariance of Peabody Picture Vocabulary Test scores did not show a significant PreK effect, even in the presence of the control variables.

Lysiak, Fae and Charles L. Evans. **Kindergarten - Fun and Games or Readiness for First Grade: A Comparison of Seven Kindergarten Curricula.** Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, 1976. ERIC Document ED 123803.

Results from this two-year study of seven kindergarten curricula in 1973-74 support the hypothesis that structured programs produce greater cognitive gains for disadvantaged children. The study also suggests that a structured program may be more beneficial for high socioeconomic children. The six curricula described and evaluated are: Lippincott's Beginning Program, Alpha Time, Getting a Head Start, Follow Through Model, Regular Kindergarten Program (Fort Worth Independent School District), and Bilingual Model. The Lippincott's Beginning to Read, Write, and Listen Program (a highly structured language-based program) was found to be most effective for low socioeconomic status (SES), high SES, and Anglo and black children. Program effects were similar for middle SES children in the four curricula examined. The effects of half-day vs full-day sessions were not supportive of full-day programs for middle SES children either year. High SES students were not in full-day programs the first year of this study; however, the second year of this study full-day programs were found to be more advantegous to high SES children in the Lippincott curricula and the Fort Worth Independent School District continum. The first year evaluation supported full-day programs for low SES children. Only full-day programs were provided for low SES children during the second year of this study.

Scott, Ralph. "Home Start: Third-Grade Follow-Up Assessment of a Family Center Preschool Enrichment Program," **Psychology in the Schools**, XIII (October, 1976), 435-38.

This study compared third-grade achievement test scores of participants in Vertical Home Start (VHS), a preschool individualized program for children from 2 to 5 years of age. Results indicate that, especially for black children, home-based preschool enrichment may more effectively promote growth in math and basic skills areas.

"Vindication of Early Childhood Programs," **Science News**, CXI (March, 1977), 151.

Latest findings show that positive effects of early childhood educational programs for the disadvantaged (e.g., Headstart, Follow Through) often do not show in achievement until later grades. There seems to be a significant difference in I.Q. gains in programs involving home visits by program professionals.

II. THE INSTRUCTIONAL PROGRAM, continued

C. INDIVIDUALIZED INSTRUCTION

Dunn, Rita. "Another Look at Individualized Instruction," **Phi Delta Kappan**, LIX (February, 1978), 400-2.

Individualized instruction in Westorchard elementary school has resulted in high scores on standardized tests of achievement in reading and mathematics.

Fesler, Elizabeth and others. "Effects of Follow Through Model: Primary Education Project—Individually Prescribed Instruction (PEP-IPI) on Children's Academic Competence," **Psychology in the Schools**, XIII (April, 1976), 181-84.

Children's academic performance was examined at the end of one, two, or three years of receiving prescriptive educational treatment. The project provided for individualization of learning from kindergarten through the third grade, and the children evidenced significant gains on standardized indices of achievement.

Goldberg, Mark F. "Individualized Instruction: Myths and Characteristics," **NASSP Bulletin**, LXI (February, 1977), 65-9.

Argues that the key to a successful individualized program lies in the teacher's attitude toward each student. Discusses some characteristics of good and bad individualized programs.

**Individually Guided Education—Multi-School Component (IGE/MUS-E) in New Jersey 1973-74.** Educational Improvement Center of Northwest New Jersey, Cedar Knolls, 1974. ERIC Document ED 107673.

This study presents the 1973-1974 evaluation findings for the New Jersey Individually Guided Education (IGE) process. Student outcomes in the cognitive and affective domain were investigated in the IGE setting and in the control setting. Additionally, factors which may facilitate a long-term commitment to the IGE process were examined. Included in the report is a "consumer package" which can be used by local educational agencies to assess the effectivenss of the IGE process at the local level.

Humphreys, Donald W. **An Analysis of the Relationship of Individualized Instruction, Self-Image of Achievement and Achievement in High School Biology.** Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Detroit, 1973. ERIC Document ED 094949.

Reported is an investigation designed to show the relationship between the time required by a student to achieve and his self-image of achievement. Approximately equal numbers of 10th- and 11th-grade biology students (N=57) from two intact classrooms were involved in the study. Learning materials from the Biological Sciences Curriculum Study (BSCS) Green Version High School (Biology (1963) were adapted to self-paced instruction. Students in both groups were given several guiding questions to be answered. For one group, teacher-specified activities were provided to help answer the questions. For the other, referred to as student structured experiences (SSE), students were asked to develop their own activities to provide the answers. The Q-sort of Single Adjectives, used to measure self-image of achievement, was administered at the beginning of the experiment and after 43, 98, and 120 days of classroom activity. Achievement was measured both by the BSCS Quarterly Tests One and Two and by the BSCS Comprehensive Final Examination. The investigator concluded that independence of learning required gradual development by most students. The academic performance of the teacher-structured group was superior to that of the SSE group but some SSE students were able to develop independent learning behavior as evidenced by superior achievement scores.

Lindvall, C.M. and Yeager, John L. **An Exploratory Investigation of Selected Measures of Rate of Learning.** Pittsburgh University, Pa.: Learning Research and Development Center, 1965. ERIC Document ED 010520.

Three measures of learning rate were explored—(1) number of units completed per year, (2) time to complete given units, and (3) amount of content mastered per day. The supposition was that these measures could be used to provide estimates of individual progress in the elementary classroom environment. Only one of these measures (amount of content mastered per day) showed minor degrees of consistency over different units of instruction, and findings of the study suggested that learning rate was not a general characteristic of the learner. It was tentatively concluded that rate of learning is specific to the learning task and is not a general parameter that applies to all learning factors. Related reports are ED 010 205 through ED 010 211 and ED 010 519 through ED 010 523.

Lipman, Jeanne E. **Evaluation of an Automated Instruction Shorthand Program**, 1976. U.S., Educational

Resources Information Center, ERIC Document ED 150308.

A field test of the Automated Instruction Shorthand System (Random House) was conducted at the University of Northern Colorado Laboratory School to determine its suitability for future implementation in Colorado schools. The multisensory instructional program conditions the rapid recall of Gregg symbols through use of animated sound color films and audio/tutorial cassettes and allows for individualization of instruction. Students in the shorthand class at the laboratory school were the experimental group (taught with the new system); those at Windsor High School were the control group (taught with traditional methods). Classes were of similar size and nearly matched in grade level and length of class period. All students were tested for retention of theory, speed and accuracy, and attitude toward the course. Neither group achieved the minimum performance of eighty words per minute with 95% accuracy. Overall performance on speed and accuracy for the control group was better than that of the experimental group. Definite conclusions were not reached because of the limited sample and numerous uncontrolled variables. Perceptions of the students and teacher involved with the new system suggest that its strengths include its individualization, visual stimuli, and the availability of theory instruction for remediation and review. Its major weakness is the lack of supplementary materials (exercises and tests). Implementation will require teacher training in individualized methods and their adaptation. Positive student attitudes and inconclusive evidence have determined the continued use and refinement of the system within the laboratory school.

Littlefield, David L. and Louis A. Gatta. **An Evaluation of Student Characteristics as Related to Cognitive Achievement in an Individualized High School Biology Program.** Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, 1975. ERIC Document ED 106111.

The primary purpose of this study was to investigate the various characteristics of successful and less successful students and to determine what effect these characteristics have on achievement in an individualized learning program. Variables considered were: (1) attitudes, (2) motivation, (3) understandings about science, (4) personality, (5) scholastic ability, and (6) the ability to think critically. This study utilized reponses from 406 students enrolled in an individualized learning biology program in a northern Chicago suburb. Utilizing a random sample of 25 percent of the population, a multiple regression equation was developed which was used to obtain a prediction equation in which achievement was the criterion measure. The results reveal that the "high" and "expected" achievers, in contrast to "low" achievers, had (1) a greater ability to think critically, (2) a more conscientious attitude toward school, and (3) they were more resourceful and self-sufficient, as they preferred making their own decisions. It was also found that the "high" achievers, in contrast to both the "expected" and "low" achievers, (1) had a greater interest in school activities, and (2) had a tendency to be less adventurous.

Maltin, Larry J. **Assessment of the Impact of Individualized Instruction on Students—Technical Report.** Suffolk County Board of Cooperative Educational Services 2, Patchogue, N.Y., 1974. ERIC Document ED 096959.

The effect of individualized instruction programs on academic achievement and attitudes of elementary school children was evaluated. It was hypothesized that students in individualized programs would have significantly higher achievement scores and more positive attitudes toward school and self and greater self-direction when compared to their peers. The effects of I.Q., sex, and previous levels of achievement were statistically controlled; the findings were: (a) students in the individualized groups had significantly higher self-direction scores; (b) significant differences were not found in achievement scores (reading comprehension, math concepts, and math problem solving) between the two groups, the sample included 120 fourth grade students from programs in the Nassau and Suffolk County region of New York.

Miller, Richard L. "Individualized Instruction in Mathematics: A Review of Research," **Mathematics Teacher**, LXIX (May, 1976), 345-51.

One hundred and forty-five studies concerning individualized programs of mathematics instruction were reviewed. The summary of results presented tends to support the effectiveness of individualized programs, but notes possible difficulties in implementing them.

Paden, Jon S. **How Is IGE Doing in the Elementary Schools? A Three-Year Survey of IGE Principals.** Dayton, Ohio: Charles F. Kettering Foundation, 1977. ERIC Document ED 140426.

Each year the principals of approximately 1,400 elementary schools participating in the I/D/E/A Change Program are sent a questionnaire that focuses on the principal's assessment of program implementation and selected effects. This paper summarizes data collected during three school years—1973-74, 1974-75, 1975-76. The size of the responding group varies from year to year. The summary statements cover such areas as the cost of implementation, verbal and numerical achievement, benefits to be derived from individually guided education, student behavior, and the program's effect on teachers.

Papay, James P. and others. "Effects of Trial and State Anxiety on the Performance of Elementary School

Children in Traditional and Individualized Multiage Classrooms," **Journal of Educational Psychology**, LVII (December, 1975), 840-6.

Primary children in the individualized multiage programs (IMP) had lower state and trait anxiety than those in traditional learning environments (TRAD), as measured by the State Trait Anxiety Inventory for Children. The IMP-TRAD instructional programs and trait anxiety had different effects on performance at the first and second grade levels.

Pepe, Thomas J. "Something Special: Enrichment Courses at Very Little Extra Cost," **School Management**, XVII (April, 1973), 29.

Pinney, Robert H. and David G. Armstrong. "Developing An Efficient Record-Keeping System," **NASSP Bulletin**, LXII (March, 1978), 57-61.

The authors suggest a method for analyzing the costs and benefits of record keeping systems for individualized instruction programs.

Rossmiller, Richard A. and Terry G. Geske. **Resource Allocation and Time Utilization in IGE and Non-IGE Schools.** Wisconsin University, Madison: Research and Development Center for Cognitive Learning, 1977. ERIC Document ED 140490.

This study addressed two basic questions: (1) Do individually guided education (IGE) schools cost more or exhibit different expenditure patterns than non-IGE schools? (2) Do instructional personnel in IGE schools allocate their time differently than instructional personnel in non-IGE schools? Data were obtained from a random sample of 41 IGE schools and 15 pairs of matched IGE and non-IGE schools drawn from 13 states. Two instruments—the School Expenditure Data form and the Time Allocation of Instructional Personnel form—were developed and used to collect data for the study. Descriptive data were presented for the sample of 41 IGE schools and t-tests for dependent samples were calculated to determine if the difference between the means were significant for any of the school expenditure and time allocation categories for the matched pairs. IGE schools did not cost more than non-IGE schools. IGE schools spend more for instructional supplies and other supplies but less for textbooks than do non-IGE schools. Teachers in the IGE schools devoted significantly more time to one-to-one instruction and significantly less time to large-group instruction than did non-IGE teachers.

Sigurdson, Conrad W. **Effectiveness of the Instruction and Research Unit and Student Achievement in IGE Schools.** Washington: National Institute of Education, 1976. ERIC Document ED 141328.

This study sought to discover the extent to which organizational aspects of Individually Guided Education (IGE) schools relate to cognitive achievement of students in those schools. The theoretical framework was conceptualized with general and social systems theories that suggest relationships between inputs, processes, and outputs. The Instruction and Research (I&R) Unit of the IGE school was the unit of analysis. The theories suggested linkages between I&R unit effectiveness and student cognitive achievement in reading and mathematics. Effectiveness of the I&R unit was measured by the I&R Unit Operations Questionnaire whereby teachers report perceptions of how well their unit accomplishes the established performance objectives. Student achievement in reading and math was measured by a standardized test battery. Data were collected from 42 I&R units, selected at random from a national population of 959 schools in at least their third year of IGE implementation. In general, it was found that staff members peceived their I&R unit as being effective; the achievement levels of students in IGE schools in both reading and math compared favorably with national norms. Two basic null hypotheses were tested to determine interrelationships of I&R unit effectiveness and student cognitive achievement. The correlational statistics revealed that there was no significance between I&R unit effectiveness and student achievement in reading and math. Based upon the findings of this study, it is not possible to state empirically that there is any relationship between the effectiveness of the I&R unit and student achievement in that unit. Suggestions are offered for further, more definitive, research in this domain. A bibliography and an extensive set of appendixes is included.

Winett, Richard A. and others. "The Effects of Architectural Change, Individualized Instruction, and Group Contingencies on the Academic Performance and Social Behavior of Sixth Graders," **Journal of School Psychology**, XIII (Spring, 1975), 28-40.

Within-classroom comparisons indicated that individualized instruction with group contingencies sharply increased the academic production of children from all ability levels, significantly improved social behavior, and changed the teacher's mode of instruction and interaction with the children. Individualized instruction alone had lesser effects, while the architectural changes produced no significant changes.

II. THE INSTRUCTIONAL PROGRAM, continued

D. IN-SERVICE PROGRAMS

Baldwin, Ronald F. **The Effect of Teacher In-Service Training and Knowledge of Research on Spelling Instruction and Achievement of Elementary School Children**, University Microfilms, Ann Arbor, Michigan, 1975. ERIC Document ED 123656.

This study examines the effect of teacher inservice training and knowledge of research upon teacher perceptions of spelling procedures and practices, and upon the spelling achievement of students. Involved in the study were 70 fourth, fifth, and sixth grade teachers in twelve elementary schools in Cedar Rapids, Iowa, and their 1,493 students. Among the conclusions were the following: it is more effective to present information to teachers in written form accompanied by appropriate inservice training sessions than to present information in written form alone; it is possible to effect changes in teacher perceptions of classroom procedures as a result of informing teachers about research-supported and research-nonsupported practices and procedures; significant differences in student spelling achievement between treatment groups were not detected during the four months this study was conducted; and significant differences in achievement between boys and girls were noted on all student measures, in favor of the girls.

Hefele, Thomas J. "The Effects of Systematic Human Relations Training upon Student Achievement," **Journal of Research and Development in Education**, IV (Winter, 1971), 52-69.

The influence of teachers who are trained in interpersonal relationships on the success of their students is examined.

Houndshell, Paul B. and Larry R. Liggett. "Inservice Education: It Can Make a Difference," **School Science and Mathematics**, LXXVI (October, 1976), 493-98.

Describes an environmental education workshop for 36 inservice secondary teachers and an evaluation of related student learning. Data indicate student learning was influenced by the treatment.

Norris, Fletcher R. "Student Mathematics Achievement as Related to Teaching In-Service Work", **Math Teacher**, LXIII (April, 1969), 321-27.

Smith, George F., **A Study of the Effects on Student Achievement in Elementary Science Programs Resulting from Teacher In-Service Training and Additional Instructional Aids.** Final Report. Ithaca, N.Y.; Cornell University, 1969. ERIC Document ED 041 762.

Twenty-four teachers, from a school system not using the new elementary science programs, taught representative new units to 544 students, with variations in their inservice training and the amount of classroom science equipment provided. Classrooms at three grade levels (1, 3, and 6) were used twice under opposing conditions. For each unit, the teachers selected for training received a teacher's guide and specific training for the unit. The teachers not selected for training received only a teacher's guide. Some classrooms received sufficient laboratory instructional aids to allow students to work in small groups of two to four students; others received minimal equipment so that their lessons included demonstrations rather than maximal interaction of children with materials. Pupils were given individual oral tests to assess subject matter achievement. Additional equipment resulted in significantly greater achievement only at the first grade level, but all pupils expressed a preference for additional aids. Specific teacher training for the unit did not produce significant differences in pupil achievement. Additional data regarding the effects of sex, I.Q. and family occupation on pupil achievement and pupil preferences are reported.

Wahlstrom, Merl and others. "Teacher Beliefs Make a Difference," **School Guidance Worker**, XXXIII (March, 1978), 4-8.

Research has demonstrated that teacher beliefs influence the curriculum and instructional method. This model views the influence of teacher beliefs on the learning climate and assessment of students.

Walberg, Herbert J. and Arthur I. Rothman. "Teacher Achievement and Student Learning," **Science Education**, LIII (April, 1969), 253-57.

Presents the procedures, results, and conclusions of a study designed to determine (1) the relations between physics teachers' knowledge of their subject and student learning on 17 cognitive, affective, and behavioral criteria, and (2) the interaction of teacher achievement with prior student achievement. Subjects were 36 teachers and their students in 60 classes.

Wilson, Victor L. and Antoine M. Garibaldi. "The Association Between Teacher Participation in NSF Institutes and Student Achievement", **Journal of Research in Science Teaching**, XIII (September, 1976), 431-39.

This study was concerned with the relationship of student achievement and teacher participation in National Science Foundation institutes. Results indicated a positive effect from institute attendance; however, the

significance of the effect varied by subject and grade level, and was influenced by factors outside the realm of this study.

II. THE INSTRUCTIONAL PROGRAM, continued

E. INSTRUCTION AND LEARNING

Brophy, Jere E. **Interactions between Learner Characteristics and Optimal Instruction.** Paper presented at the Annual Meeting of the American Psychological Association, Chicago, 1975. ERIC Document ED 146142.

Possible implications of individual and group differences for educational research and practice are discussed. Differences include preference for cooperative versus competitive tasks; for working alone versus in a group; for structured versus unstructured learning situations; or for individual versus group reward contingencies; social class and racial differences; language differences; interactions between motivational structures and responses to reward versus punishment; and sex differences. The assumption that schools should pitch to strengths and attempt to avoid weaknesses is called into question on two grounds. First, this assumption usually includes another, less explicit assumption, that different paths will lead to the same ultimate goal. However, pitching to strengths and avoiding weaknesses usually will increase group differences, not decrease them. Secondly, remediation of weaknesses is also needed if the weaknesses are of societal importance. Thus matching instruction to learner characteristics is seen as requiring value judgments about what is or is not desirable both for the students and for society at large.

Brown, Calvin L. "Schooling and Learning." **The Georgia Principal**, XII (Winter, 1976), 18-28. ERIC Document ED 120 965.

Numerous studies have investigated the relationship between educational resources and learning. Many researchers have used the production function form of input-output analysis in an attempt to determine the relationship between certain output indicators (e.g. pupil-teacher ratio.) Measures of input are often separated into socioeconomic characteristics and school characteristics. Evidence tends to support the contention that the accomplishments of schools are limited by the socioeconomic background of their students. However, the interest of educators centers primarily on school resource variables, since only they can be affected by educational practice and policy. Generally, teacher characteristics appear to be the most important school-related determinants of school output. For example, Brown's study of 183 Georgia school districts indicated that highly productive districts tended to spend more for instruction; since teacher salaries account for most of this budget category, these findings lend credence to the hypothesis that achievement is probably a function of teacher quality.

Chalupsky, Albert B. and Gary J. Coles. **The Unfulfilled Promise of Educational Innovation.** Paper presented at the Annual Meeting of the American Educational Research Association, New York, 1977. ERIC Document ED 137942.

A nationwide, longitudinal study investigated changes in student achievement in grades 1-2 associated with intensive educational innovation. Standardized reading, language, and arithmetic test scores; student and teacher background and attitudinal data; and educational characteristics underlying school programs were obtained over a three year period. Findings showed a lack of either substantially or consistently positive associations between achievement and program level emphasis on innovation. Relative to the sample of schools participating in the project, students enrolled in programs with a more moderate emphasis on innovation and individualization showed the greatest improvement. Younger students (those in grades 2 and 3) who achieved substantially more than expected during two consecutive years were exposed to a notably greater amount of class time per day on language arts during the second grade than were the consistent underachievers. The results suggest that educational innovation per se will not necessarily produce dramatic effects on student achievement. Educational quality is not synonymous with innovation.

Coles, Gary J. and Albert B. Chalupsky. **Major Policy Implications of a Recent Large-Scale Longitudinal Study of Educational Innovation.** Paper presented at the Annual Meeting of American Educational Research Association, Toronto, 1978. ERIC Document ED 153 317.

A recent U.S. Office of Education-sponsored study of the overall impact of educational innovation, the Longitudinal Study of Educational Practices (Project LONGSTEP), showed that student achievement was not related to emphasis on innovation in any substantial or consistently positive way. These findings have been mistakenly interpreted by some as a sweeping criticism of all innovative school practices. A more accurate interpretation, however, is that new educational techniques per se will not automatically guarantee dramatic improvements in achievement. This paper reviews Project LONGSTEP's results and discussed the major policy implications of these findings for decision-makers in both education and government.

"Cost of Education Index 1970-71: Spending for Instruction," **School Management**, XV (January 1971), 18-25, 63.

Eisenberger, Katherine E. "Declining Enrollments: Implications for Curriculum," **NASSP Bulletin**, LXI (March 1977), 47-53.

Eisner, Elliot and Elizabeth Vallance, Eds. **Conflicting Conceptions of the Curriculum**. Berkeley, California: McCutchan, 1974.

Graves, Richard L. "English Elective Curricula and How They Grew," **Educational Forum**, XXXVIII (January, 1974), 195-201.

Discusses curriculum planning and improvement with the focus on the needs of the individual student.

Hechinger, Fred M. "No One Knows What Makes a Good School," **The New York Times**, November 13, 1977, 12:1, 14.

Compares the results of five major studies of the factors that are generally believed to influence students' achievement. The intent was to determine what knowledge does work in the process of learning. After evaluation eight factors that are supposed to determine learning, an examination of some of the causes for differeing attitudes towards those factors is considered.

McCormick, Paul J. "A Comparison of Achievement in English of Eleventh- and Twelfth-Grade Students in an Elective Program with Those in a Traditional Program." Unpublished Doctural Dissertation. Lehigh University, 1973.

The purpose of this study was to examine and compare the academic achievement of students enrolled in an elective English program with the achievement of students enrolled in a traditional English program with the achievement of students enrolled in a traditional English program. The 320 subjects were eleventh and twelfth grade students at two New Jersey high schools, selected at random, and assigned to groups according to treatment, sex, and grade level. The results of the pretesting and posttesting were submitted to an analysis of covariance procedure to determine results against the following seven hypotheses: Treatment effects=0, grade level effects=0, sex effects=0, treatment x grade level interaction=0, Treatment x sex interaction=0, grade level x sex interaction=0, and treatment x grade level x sex interaction=0. The first hypothesis was found to be significant at the .05 level, and all others were found to be nonsignificant. It may be concluded that students enrolled in an elective English program do achieve more than their peers enrolled in a traditional program, and that the difference is due to the treatment and not to any other factor. Care should be exercised not to conclude that the advantage for the experimental group necessarily implies superiority large enough to warrant implementation of elective programs.

Mangione, Anthony R. "A Second Look at English Electives," **English Record**, XXIII (Spring, 1973), 76-82.

Critically examines elective programs in English curriculums, concluding that careful planning is necessary if they are to be meaningful catalysts for learning.

New York State Education Department **Which School Factors Relate to Learning?** U.S., Educational Resources Information Center, ERIC Document ED 126 613, 1976.

Nielsen, Paul and Robert Keropian, "How to Gain Instructional Time without Additional Cost," **Journal of Secondary Education**, XLIV (January, 1969), 25-30.

Rosenshine, Barak. "Enthusiastic Teaching: A Research Review," **School Review**, LXXVII (August, 1970), 499-514.

Rossmiller, Richard A. and Thomas H. Maran. **Programmatic Cost Differentials in Delaware School Districts**. Wilmington: Delaware State Board of Education, 1973. ERIC Document ED 083712.

Saylor, J. Galen. "Reform in the Secondary Education: The Continuing Efforts to Reform Secondary Education, and a Modest Proposal," **Curriculum Bulletin**, XXXII, (May, 1978).

Summers, Anita A. "Do Schools Make A Difference?" **American Economic Review**, LXVII (September, 1977), 639-53.

Based on a microeconometric examination of Philadelphia school district data, analyzes the impact on student achievement of pupil-specific variation in students' genetic endowment and socioeconomic status, teacher quality, nonteacher school quality, and peer group characteristics. Single copies may be purchased from Secretary, C. Elton Hinshaw, 1313 21st Avenue South, Nashville, Tennessee 37212.

Walberg, Herbert J. and Sue Pinzur Rasher. "Public School Effectiveness and Equality: New Evidence and Its Implications," **Phi Delta Kappan**, LVI (September, 1974), 3-9.

Since 1966, support of public schools has been damaged by widely accepted hypotheses built by Coleman, Jencks, and others on inadequate samples and faulty measurement. Describes the research of Herbert Walberg and his associates who are generating diametrically opposed hypotheses from new data.

Walberg, Herbert J. and Sue Pinzur Rasher. "The Ways Schooling Makes a Difference," **Phi Delta Kappan**, LVIII (May, 1977), 703-7.

The research summarized and reported contradicts the view that schooling makes little difference and that its improvement in quality and equality of opportunity lies beyond our reach.

II. THE INSTRUCTIONAL PROGRAM, continued

F. INSTRUCTIONAL TECHNOLOGY

Fraley, Lawrence E. and Ernest A. Vargas. **The Measurement of Instructional Accomplishments.** U.S., Educational Resources Information Center, ERIC Document, ED 064 386.

Instructional system technology in recent years has been characterized by an increase in individualized instruction and the modularization of the curriculum. In traditional systems the learners are forced to take blocks of instruction the size of entire courses and these are much too large. The courses can now be broken down into conceptual subdivisions and these into series of modules. Each module has clearly stated behavioral objectives regardless of the nature of the intellectual performance prescribed in it. The test items of the module are derived from the objectives rather than from the instructional materials currently in use to attain them. The instructional materials for a module may be offered on different tracks which feature different levels of abstraction thus accommodating the different learning characteristics of individual learners. Most instructional system developers today are looking ahead to a time when good modules will be developed at many localities and circulated widely for use at various institutions. There is a growing need for a valid and widely applicable method of evaluating modules of instruction. Three basic criteria are relevant to the evaluation of a module of instruction: (1) the amount of learning that results, (2) the dollar equivalent cost to the instructional organization of providing the module, and (3) the amount of learner time consumed by interaction with the module. An example is given comparing three different versions of a module.

Friedlander, Bernard Z. **Instructional Television in the Primary School Classroom: New Horizons, Or Another Wasteland?** Child Language Research Lab, Hartford University, West Hartford, Conn., 1973. ERIC Document ED 105854.

Instructional television is said not to have achieved its potential in primary grades because of five major problems, all related to lack of precise information about the communiative effectiveness of instructional presentations in appropriate time frames. The five problems cited and discussed are lack of adequate knowledge of primary children's auditory and visual comprehension; lack of accurate knowledge about effective programming; lack of techniques for integrating television with print; lack of mobilization of pupil active participation; and lack of cost-effectiveness information. It is said that these problems might be solved with careful research, and suggestions are made for implementing such a program.

Kincaid, Harry V. and others. **Technology in Public Elementary and Secondary Education: A Policy Analysis Perspective.** Educational Policy Research Center, Stanford Research Inst., Menlo Park, California, 1974. ERIC Document ED 089734.

Analysis of the use of educational technology in public education reveals the following. First, technology is generally an added-on, teacher-dependent tool, although there is a trend to student-focused, individualized uses. Second, technology does not lead to increased learning, although it can offer advantages such as time savings and curricular enrichment. Third, educational technology is expensive and as long as student time in school is fixed independent of learning, less capital intensive approaches will be more cost effective. Finally, the activities of the Federal agencies are focused upon the newer technologies such as educational television, simulations, computer-assisted instruction and multimedia systems. Thus, it is evident that technology is not about to revolutionize education by radically lowering costs or increasing instructional effectiveness. There is a need for both the coordination of Federal activities in the area of educational technology and for greater dissemination of information about successful implementations. Finally, educational technology's hardware needs to be standardized and more attention should be paid to the use of technology for special applications and with special populations, rather than as a substitute for conventional instruction.

Main, Ray E. and Bruce Griffiths. "Evaluation of Audio and Pictorial Instructional Supplements," **AV Communication Review**, XXV (Summer, 1977), 167-79.

Present findings cast doubts on previous claims concerning the value of media supplements to printed text.

Willey, Lawrence V., Jr. "Nine Ways for Small and Middle-Size School Districts to Make Computers Pay Off," **American School Board Journal**, CLX (August, 1973), 35-37.

Indicates that board members and superintendents from smaller districts should start thinking about the wide variety of potential uses for a computer. Points to the increasing numbers of regional computer centers giving small districts access to computer power.

## II. THE INSTRUCTIONAL PROGRAM, continued

### G. INSTRUCTIONAL TIME ALLOCATION

Beginning Teacher Evaluation Study. **Instructional Time Allocation in Fifth Grade Reading**. San Francisco: Far West Lab for Educational Research and Development, 1976. ERIC Document ED 145412.

This report describes the naturally occurring variations in time allocated to reading instruction in eighth grade-five classes selected as part of the Beginning Teacher Evaluation Study. Students completed a set of reading tests in early and late fall and teachers maintained records of instructional time allocated, setting, and content covered. Ceiling effects in the reading tests precluded an analysis of the relationship of time to achievement. The time data were analyzed to identify variations across classes and differences between students within a class in terms of time allocated to instructional settings and content areas. It was found that opportunity to learn varied greatly from one class to another and from student to student within any given class. Mean teacher ratings of student engagement compared reasonably well with independently observed class averages of engagement.

Brennan, Robert L. "A Model for the Use of Achievement Data and Time Data in an Instructional System," **Instructional Science**, IV (July, 1975), 113-136.

This paper considers both theoretical and practical issues involving the use of different kinds of achievement data and time data in evaluating an instructional system.

Deady, Gene M. **The Effects of an Increased Time allotment on Student Attitudes and Achievement in Science.** Paper presented at the Annual Meeting of the National Association for Research in Science Teaching, Minneapolis, 1970. ERIC Document ED 039126.

Investigated were the effects of increased time allotments, and of the teacher's preference for a particular time allotment, on fourth grade students' achievement in and attitudes to science. The sample involved 324 students from 16 classrooms. Students were randomly assigned to classes, and teachers to the control (minimum time, averaging 35 minutes per day) conditions. Teacher time preferences were determined from a questionnaire. Students were pre- and posttested on science achievement using the Cooperative Sequential Tests of Educational Progress, Science, Form 4A, and an experimenter developed test on the science content taught. Pre- and posttest measures of attitudes were obtained from interviews using Lowery's Projective Test of Attitudes. During the school year all groups gained in science achievement. Changes in attitudes toward science occurred in both directions. No differences significant at the 0.01 level were found attributable to either time allotment or teacher preference for time allotment. No significant interactions were found between students' reading level or I.Q. and time allotment. (Not available in hardcopy).

Filby, Nikola N. "Time Allocated to Reading and Mathematics (How It Varies and Why)," **California Journal of Teacher Education**, IV (June, 1977), 12-22.

An important part of curriculum planning for the teacher is knowing how to evaluate time expenditures against learning goals for individual students.

Filby, Nikola N. and others. **Allocated and Engaged Time in Different Content Areas of Second and Fifth Grade Reading and Mathematics Curriculum.** Paper presented at the Annual Meeting of the American Educational Research Association, New York, 1977. ERIC Document ED 137315.

This document records a study made on the amount of time students spend on academic learning. Data were collected in two different ways: (1) Teachers kept logs of the content of instruction and the amount of time spent in different content areas. Records of individual students were kept throughout the year, first on a daily basis and later on a weekly basis. These logs provided a detailed record of the time allocated to different skill areas. (2) Observers recorded the amount of time students spent actually engaged in learning. Engaged or active learning time is that subset of the allocated time when a student appears to be attending to the task. Teacher logs were collected at two grade levels, the second and the fifth, and in two subjects, reading and mathematics. A comparison was made between time allocations and use and student academic achievement. The conclusion was reached that monitoring the use of time in the classroom is an important facotr in teaching effectiveness.

Fisher, Charles W. and others. "Instructional Time and Student Achievement in Elementary School," **California Journal of Teacher Education**, IV (June, 1977), 23-39.

The objective of this analysis on use of time in the classroom was to show whether or not students who spend more time in a particular content area also show higher achievement in that content area; the qualified conclusion is that more time yields more learning.

Fisher, Charles W. and others. **Instructional Time and Student Achievement in Second Grade Reading and Mathematics.** Paper presented at the Annual Meeting of the American Educational Research Association, New York, 1977. ERIC Document ED 137293.

The goal of this study was to assess the relationshiop between amount of instructional time and student achievement. Two questions were addressed: (a) Do students who have more time allocated to a particular subject area also learn more in that area? and (b) Do students who spend more "engaged time" in a particular subject area learn more in the subject area? Achievement tests in reading and mathematics were administered in ninth grade 2 classrooms on two occasions approximately eight weeks apart. In the intertest period, time allocated in specific content categories was reported daily by teachers. In six of the classes "engaged time" was assessed by direct observation. Quantities of allocated and "engaged time" were related to achievement in a series of regression analyses. Instruction time and student achievement were positively related. Substantial differences in amounts of time were necessary before this relationship could be detected. The strength and consistency of the relationship varied considerably.

Fisher, Charles W. and others. **A Study of Instructional Time in Grade 2 Reading.** San Francisco: Far West Lab for Educational Research and Development, 1976. ERIC Document 145414.

This report describes a field study of the relationship between instructional time and student achievement in nine grade-two classrooms. Amounts of time allocated to reading and to instructional settings was also measured for a 10-day period. Relationships between both allocated and engaged time in specific reading content categories and achievement in those content categories were examined. Large differences were found in the amounts of time students were engaged in instructional activities. Positive but relatively weak relationships were found between amount of instruction and student achievement.

Garner, William T. **The Identification of an Educational Production Function by Experimental Means.** Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, 1973. ERIC Document ED 075033.

Eighth grade students, randomly assigned to three criterion performance levels, studied matrix algebra in three programmed lessons. Student achievement, ability, time spent, and other measures were obtained; and minimal variance criterion performance levels, analogous to production isoquants, were attained. A Cobb-Douglas (log-linear) function was estimated by regression, with output (criterion levels) exogenous and time to mastery used as a dependent variable. The use of the function to predict the time required for various student ability and performance combinations is illustrated. Costs and implications for equity/efficiency decisions in school management and finance are discussed under various assumption. A companion document is EA 005 176.

Garner, William T. "Time in Learning and Schooling," **APSS Know How**, XXVIII (December-January, 1977), 1-4.

This article reviews recent research by economists, psychologists, and others on the role of time and the value of time in learning and schooling.

Gay, Lorraine R. **Temporal Position of Reviews and Its Effects on the Retention of Mathematical Rules.** Paper presented at the Annual Meeting of the American Educational Research Association, New York, 1971. ERIC Document ED 047960.

Reported are the results of a study which investigated the effect of temporal position of review through two experiments. Experiment I involved one review; Experiment II involved two reviews. In Experiment I eighth grade students were pretested, presented with the learning task (four rules from algebra and geometry), and randomly assigned to one of four groups. Reviews were presented one day (Group I), one week (II) and two weeks (III), after criterion. The control group got no review. Three weeks after the original learning, a retention test was administered. Although the review groups retained more than the control group, temporal position was not significant. Seventh grade students were used in Experiment II. Reviews were made for one and two days (Group (Group I), one and seven days (II), or six and seven days (III). The control group received no review. A three week retention test showed that the review groups retained significantly more than the control group. Group II retained significantly more than Group I. It was concluded that one review is more effective than no review, while an early and a late review produced optimal retention over a three-week interval.

Good, Thomas L. and Terrill M. Beckerman. "Time on Task: A Naturalistic STudy in Sixth-Grade Classrooms," **Elementary School Journal**, L XXVIII (January, 1978), 192-201.

Presents data from a study investigating whether pupil involvement in tasks was different for high, middle, and low achievers. Results of the study are presented in nine tables.

Green, Thomas F. "Time as an Educational Variable," **Notes on the Future of Education**, III (Winter, 1972), 2-6.

Makes it obvious that the alteration of one variable will have significant impact upon the other.

Guthrie, John T. and others. **Impacts of Instructional Time in Reading.** Paper presented at the Conference on Theory and Practice of Beginning Reading Instruction, University of Pittsburgh, 1976. ERIC Document ED 155645.

Questionnaires were sent to principals and teachers of second and sixth grade children who were part of an Educational Testing Service (ETS) study of compensatory reading programs; the data were combined and analyzed with the original ETS data to determine what effects instructional characteristics had on reading achievement. Within the constraints posed by the particular procedures used, instructional characteristics of reading programs were found to have an impact on reading achievement. The time spent in formal reading instruction is a particular variable that is likely to increase reading achievement. Specifically, the impact of time on achievement was greater for second graders than for sixth graders, for low socioeconomic status children than for middle or high socioeconomic status children, and in compensatory rather than regular reading programs. The types of instructional emphasis (teaching specific skills) had less impact on achievement than instructional time did. (Discussion following presentation of the paper is included.)

Harnischfeger, Annegret and David E. Wiley. **Teaching-Learning Processes in Elementary School: A Synoptic View. Studies for Educative Processes. Report No. 9.** Berkeley: Far West Lab. For Educational Research and Development, 1975. ERIC Document ED 124509.

This approach to the study of classroom teaching-learning processes concentrates on pupil time and the various ways in which it is used. The conceptual framework contrasts with most earlier studies that report teacher behavior as the most direct influence on pupil achievement. Two premises form the basis of the framework: (1) The total amount of time devoted to a particular instructional topic is the most important determinant of pupil achievement; and (2) There is enormous variation in learning time for different pupils. The foci of the conceptual model are pupil pursuits and activities, teacher activities being relevant only in the way they influence those of the pupil. The leading organizational concept is an "a priori" concept of school as defined by educational plolicy. The time factor preconditions educational effects by defining the quantity of schooling. Amounts of schooling have strong, casually interpretible relations to achievement. Pupil activities and time allocations are additionally superstructures. Teacher planning and classroom carry through, teacher evauation procedures, and policy research emerge as unexamined by vital foci for further research.

Hunter, Madeline. **Appraising the Instructional Process.** Paper presented at Annual Conference of California Advisory Council of Educational Research, 1973. ERIC Document ED 139792.

In this paper the most effective use of instructional time is discussed. In evaluating the efficient use of teaching time, the following questions are examined: (1) Is the instruction process preceeding toward a perceivable objective? (2) Is the instructional objective at the right level of difficulty for the learners who are investing time? (3) Is there constant monitoring of the degree of achievement of the objective so redundance or acceleration can be built into the instructional process if either is indicated? (4) In which ways are the time and energy expended by the learner and teacher consonant with principles of efficient and effective learning? and (5) Is there dissonance between time and energy expended and principles of learning?

Kiesling, Herbert. **The Relationship of Time Spent on Reading Instruction to Reading Gains as Measured by Norm-Referenced and Criterion-Referenced Tests.** Bloomington: Indiana University, 1975. ERIC Document ED 116135.

This paper reports findings of research done concerning the productivity of types of classroom reading instruction in a sample of New York elementary classrooms. Data were gathered from approximately 5,800 fourth, fifth, and sixth grade students in five New York State school districts during the spring semester of the 1974-1975 school year. The main design of the analysis is based upon the "production function" pardigm used by economists, in which attention is paid to how the inputs of "ingredients" to a production process are mixed together to produce outcomes. To pinpoint instructional resources going into reading, teachers, aides, and specialists were asked to supply figures for minutes per week of reading instruction in each of four instructional modes: whole group, small group, individualized instruction, and individual help. Outcomes were measured by a standardized achievement test and a set of criterion-referenced tests. An important finding was that minutes of classroom

teacher instruction seem to be related to student performances when measured by the criterion-referenced tests but not when measured by the standardized test.

Powell, Barbara S. **Intensive Education: The Impact of Time on Learning.** Newton, Mass.: Education Development Center, Inc., 1976. ERIC Document ED 144195.

Intensive education is an alternative educational approach in which students study one or two subjects a day for a concentrated number of weeks. This report considers whether intensive study is a valid alternative to the traditional class schedule and discusses the strengths, values, and problems of intensive education. Data sources for the report include 1) a selective review of the history and literature of intensive education; 2) interviews with teachers, administrators, and students; 3) site visits to nine intensive education programs; 4) observation of 12 intensive education classes; and 5) a survey of administrators of 34 secondary school intensive education programs. Section 1 presents a historical review of different studies and approaches involving time as a dimension of learning. Section 2 discusses examples of various intensive education programs. Section 3 examines the effects of intensive education on student learning, teacher roles and methods, and student-teacher relationships. Section 4 discusses the implementation of intensive education programs. The appendix describes 20 existing programs that incorporate some form of intensive study at the secondary level.

Powell, Marjorie and Leonard S. Cahen. **Policy Issues Related to Research on Instructional Time.** Paper presented at the Annual meeting of the American Educational Research Association, New York, 1977. ERIC Document ED 139096.

The implications of preliminary information about the relationships between allocated and engaged time and student achievement are discussed in terms of effects on teacher preparation programs. In addition, those who fund education at the state and local levels may be interested in the findings. The data have implications for testing students, evaluating teachers, and ensuring quality of instructional opportunity for students across a variety of classrooms. The importance of stating policy questions in ways that allow research to help in making policy decisions is noted.

II. THE INSTRUCTIONAL PROGRAM, continued

H. READING

Artley, A. Sterl. "The Teacher Variable in the Teaching of Reading," **Reading Teacher**, XXIII (December, 1969), 239-48.

Doucette, John and Robert St. Pierre. **Anchor Test Study: School, Classroom, and Pupil Correlates of Fifth Grade Reading Achievement.** Washington: National Center for Education Statistics, 1977. ERIC Document ED 141418.

Data collected during the Anchor Test Study norming phase were used to investigate substantive relationships between reading achievement and school, classroom, and pupil variables. School characteristics, such as location, public or private, socioeconomic level, and percentage minority enrollment, were found to be related to achievement in reading as measured by the Metropolitan Achievement Tests. Reported IQ, race or ethnicity, primary language, and the diagnosis of a reading problem were significant correlates of reading achievement. Ability grouping and class size, the classroom variables studied, were not related to reading proficiency. The interrelationships among selected pupil and school characteristics were analyzed in addition to the univariate relationships of pupil variables to reading achievement. An overview of the Anchor Test Study and detailed descriptions of the methodologies used in the present study are provided.

Fearn, Leif and Amelia Martucci, comps. **Reading and the Denied Learner.** Newark, Del,: International Reading Association, 1969. ERIC Document ED 079 692.

This annotated bibliography offers representative works from material for the development of teachers and children. It is organized under several categories significant to the teacher in the reading curricular sphere. The whole area of reading instruction is given attention as is the role of language development as an influence upon reading. Materials for teachers, literature for children, and available bibliographies are included. The two main categories in which selections are presented are Learning and the Denied Child and Reading the Denied Learner.

Mangieri, John. "A Secondary Reading Program That Worked", **Reading Improvement**, XV (Spring, 1978), 10-12.

Describes a collaborative effort between the Meigs (Ohio) local school district and the college of education at Ohio University that had significant positive effects on students' reading achievement and teacher effectiveness in reading instruction.

Marzano, Robert J. and others. **The Ideal Reading Program**, Report prepared at University of Colorado at Denver. ERIC Document 147 792.

From a review of some 70 relevant studies, characteristics are identified that have been shown to influence student achievement. These included both characteristics of the learning environment and characteristics of the teacher. The "ideal" reading program that emerges is characterized by small classes; adequate space, materials, and physical facilities; individualized and group instruction; thorough diagnosis; and the presentation of skills in a systematic and hierarchical fashion. The teacher is sensitive, well-informed about reading, enthusiastic, and organized, respects and uses student input, and strives to improve his or her skills in the teaching of reading.

Rupley, William H. and Timothy R. Blair. "ERIC/RCS: Teacher Effectiveness in Reading Instruction," **Reading Teacher**, XXXI (May, 1978), 970-3.

A discussion of selected ERIC documents that focus on teacher effectiveness in reading instruction is presented.

II. THE INSTRUCTIONAL PROGRAM, continued

I. SCHOOL ACTIVITIES

Aldermann, R.B. **Psychological Behavior in Sport**. Philadelphia: W.B. Saunders, 1974.

Allen, Howard W. and Bruce Gansneder, "Student Perceptions about Sudent Activities," **High School Journal**, LX (October, 1976), 10-16.

Suggests ten major factors that may influence students' feelings about and participation in activity programs.

Buhrmann, Hans G. "Scholarship and Athletics in Junior High School," **International Review of Sport Sociology**, (1972), 119-31.

Davidson, Richard A. "A Study of Personality Traits and Value Systems of High School Athletes and Non-athletes." Unpublished doctoral dissertation, University of Kentucky, 1967.

Evans, Bruce and Hilmar Wagner. "Have Student Activities Costs Gotten Out of Hand?" **NASSP Bulletin**, LV (September, 1971), 22-33.

Gayles, Anne Richardson, "A Statement of Philosophy and Guiding Principles for Student Activities in a Secondary School," **Negro Educational Review**, XXII (January, 1971) 37-44.

Gordon, Vera Julia. **Extra Curricular Programs—How to Survive in an Era of Austerity**. U.S., Educational Resources Information Center, ERIC Document ED 136371, 1977.

Extracurricular activities are vitally important to the life of students, the school itself, and the community. However, they can be expensive. These activities should be studied so that their role and importance are known and cost analyses should be conducted. The interested parties must be involved in the analyses and in implementing any changes that are made.

Gorton, Richard A. "How to Run an Efficient and Effective Student Activities Program," **NASSP Bulletin**, LX (December, 1976), 69-76.

What should a student activities program be? What should it provide? Who should be responsible for its organization and smooth operation? Answers these questions in a discussion of this important part of every school's total program.

"How to Figure Your True Sports Costs", **American School Board Journal**, CLXII (June, 1975), 21-24.

Martin, David L., "Competitive Sports: Are They Wasting Dollars and Ruining Your Youngsters Too?" **American School Board Journal**, CLX (August, 1972), 16-20.

Rehberg, Richard A. and Walter E. Schufer. **Participation in Student Activities as a Variable in the Educational Attainment and Expectation Process**. U.S., Educational Resources Information Center, ERIC Document ED 074 498. 1973.

Four-wave, five-year longitudinal panel data are used to assess selected antecedents and consequences of participation in student activities. Path analysis reveals that the "early" or freshman year educational expectations

of high school students are a critical determinant of senior year participation for males and females but only for females during the sophomore year. Parental achievement socialization practices exert a direct effort on participation but only for males. Both educational attainment subsequent to the completion of high school and educational expectation level during the senior year are directly dependent upon participation. Sex differences in the determinants of participation lead to inferences regarding the meaning of participation for males and for females. Tables and references are included.

Otto, Luther B. "Extracurricular Activities in the Educational Attainment Process, **Rural Sociology**, XL (Summer, 1975), 162-76.

Spady's hypothesis that the extent of participation in high school extracurricular activities has a salutary effect on educational attainment statistically controlling on background socioeconomic statuses, academic ability and performance, is tested on 340 17-year-old males surveyed in 1957 and again in 1972.

Schendel, Jack. "Psychological Differences Between Athletes and Nonparticipants in Athletics at Three Educational Levels", **Research Quarterly**, XXXVI (1965), 52.

Snyder, Eldon E. and Elmer Spreitzer. "Participation in Sport as Related to Educational Expectations among High School Girls," **Sociology of Education**, L (January 1977), 47-55.

An analysis of the relationship between extracurricular participation and educational expectations among high school girls. Correlations are found between athletic participation or involvement in music and academic orientation. Findings also reveal differences according to the type of interscholastic sport in which girls participate.

Spady, William G. "Status, Achievement, and Motivation in the American High School", **School Review**, LXXIX (May, 1971), 379-403.

Spreiter, Elmer and Meredith Pugh. "Interscholastic Athletics and Educational Expectations," **Sociology of Education**, XLVI (Spring 1973), 171-82.

The findings of this study show that participation in athletic activities is not necessarily detrimental to academic pursuits; in fact, boys who were not otherwise predisposed to attend college were strongly influenced by sports involvement.

**A Study of Student Activities in Utah High Schools**, Utah State Board of Education, 1978.

Taylor, Hugh. **Personality and Achievement of Athletic and Non-Athletic High School Girls.** U.S., Educational Resources Information Center, ERIC Document ED 114726. 1973.

This study investigated personality and academic achievement differences between athletic and non-athletic ninth and tenth grade girls in a Canadian school. Athletes participated in at least one of four interscholastic sports while the non-athletes were involved in only activities associated with a required Physical Education course. Differences between the groups on 14 scales of the California Personality Inventory were analyzed by means of the t test. Chi-square analyses were conducted on the distributions of year-end letter grades in English, Mathematics, Physical Education, Science and Social Studies. The results indicated that at both grade levels athletes rated significantly higher than non-athletes on the personality factors of dominance, sociability and achievement via conformance. At the ninth grade level, the athletes obtained a significantly larger proportion of high grades in all subject areas than did the non-athletes. At the tenth grade level, the distribution of letter grades in Science and Physical Education were significantly different between the two groups, with more of the high grades being awarded to the athlete group.

VanderZwagg, Harold J., **Toward a Philosophy of Sport**. Reading, Mass.: Addison-Wesley, 1972.

Werner, Alfred C. and Edward Gottheil, "Personality Development and Participation in College Athletes," **Research Quarterly**, XXXVII (1966), 127.

Wodder, Gary N., "How Not to Let the Sports Tail Wag the Education Dog", **American School Board Journal**, CLX (August, 1972), 21-23.

Wray, Jerome A. "Costs of Secondary School Athletic Programs," **School Management**, XVI (November 1972), 23-28.

A case study utilizing cross sectional regression analysis to predict whether or not the correct expenditures are being made for school athletics. Regressions are run for athletic cost per pupil vs school population, number of coaching assignments vs school population, and coaching expenditures vs coaching assignments.

II. THE INSTRUCTIONAL PROGRAM, continued

J. SPECIAL EDUCATION

Ayllon, Teodoro and Kathleen Kelly. **A Nine-Month Token Reinforcement Program for the Trainable Retarded.** Center for Applied Behaviorial Research, Georgia State University, Atlanta, 1972. ERIC Document ED 071257.

Reported are five studies related to the effects of a token reinforcement system based upon principles of operant conditioning on academic performance of trainable mentally retarded. (TMR) children, conducted over a 9-month period in an entire school for TMR students. Study 1 investigated the effects of a school-wide reinforcement program on standardized test performance. Study 2 found that noncontingent delivery of reinforcement (tokens) decreased the rate of correct academic responses (the target behavior) and, in some cases, increased the rate of incorrect responses. Study 3, which manipulated the required behaviors leading to reinforcement, showed a direct relationship between actual work output and stated requirements for time was decreased, rate of correct responding increased. The final study involved a short-term (5 week) program using token reinforcement to identify TMR students who could function in an EMR (educable) setting.

Anderson, Roy and others. "A Data Based Inservice Teacher Training Model for Public School Systems", **Education and Training of the Mentally Retarded,** XIII (April, 1978), 224-8.

A teacher training model designed to provide teachers with skills to successfully implement individualized programming in at least one academic area at the end of a 6 month instructional period was instigated with 17 second grade teachers.

Chambers, Jay G. **Educational Price Differentials: A Clarification of the Issues.** Speech presented at the Annual American Educational Finance Conference, 1976. ERIC Document ED 123720.

This paper provides a clarification of two factors—the differences in pupil need (as reflected by the proportion of disadvantaged or handicapped pupils in a district) and the differences in the prices of school inputs across districts—that affects the cost of educational services and a conceptual framework that may be useful in making welfare comparisons across school districts. Section 1 provides a clarification of what is meant by the concept of an educational price differential. Section 2 deals with the impact of wealth disparities on the demand for educational quality and reveals the extent to which variations in the demand for educational quality lead to salary differentials for school personnel. Section 2 examines the sources and nature of the variations in the cost of educational services. Section 4 presents a discussion of the economic theory of index numbers along with some of the problems encountered in the determination of the "true" cost-of-education index. Finally, section 5 clarifies what is required in order to calculate a cost index for educational services.

Daugherty, Kathryn M. "Monterey Learning Systems: Improving Academic Achievement of Visually Impaired Learners," **Journal of Visual Impairment and Blindness,** LXXI (September, 1977), 298-301.

Tested was the premise that the academic competencies of visually impaired learners could be enhanced by training procedures that combine auditory and visual skills in a project using the Monterey Learning Systems Reading and Mathematics Programs with 29 visually impaired print readers.

Harris, Donna. **A Comparison of the Achievements of Low Ability Elementary Pupils in Two Models of Instruction.** Paper presented at the Annual International Convention, The Council for Exceptional Children, Chicago, 1976. ERIC Document ED 126641.

Compared were the effectivness of individualized instruction in a mainstreamed open classroom settting and instruction in a traditional classroom setting on the achievement levels of 56 low ability students (grades 1-6). Two groups of Ss, paired for grade level and IQ, were tested after 1, 2, and 3 years of exposure to the models. There was no significant difference in academic achievement scores of the two groups; however, the expected correspondence between IQ and achievement was found.

Jones, R.L.J. Gottlieb, S. Guskin, and R.K. Yoshida. "Evaluating Mainstreaming Programs: Models, Caveats, Considerations, and Guidelines," **Exceptional Children,** XLIV (December, 1978), 588-601.

A variety of practical and theoretical issues pertinent to the evaluation of mainstreaming programs are presented. The paper concludes with presentation of guidelines for developing and appraising mainstream evaluation reports, and the observation that problems related to the evaluation of mainstreaming programs are not insurmountable.

McLure, William P. "Pupil Weightings-Investment Differentials," **Journal of Education Finance,** II (Summer, 1976), 72-82.

Discusses the use of program cost analysis to identify cost differentials among educational programs that receive categorical state and federal funds. Using data from a recent Illinois study, calculates cost-per-pupil differentials among 22 special education programs and 18 vocational education programs.

Mann, P.H., ed. **Shared Responsibility for Handicapped Students: Advocacy and Programming.** Miami: Banyan, 1976.

A collection of thirty-one articles that represent current viewpoints from professionals of different levels of education and in related professions concerned with shared responsibility roles in the mainstreaming of handicapped students.

Mayhall, William F. and Joseph R. Jenkins. **Scheduling Daily or Less-Than-Daily Instruction: Implications for Resource Programs," Journal of Learning Disabilities,** X (March, 1977), 159-63.

Reynolds, Maynard C. and Jack W. Birch. **Teaching Exceptional Children in All American Schools.** Reston, Virginia: Council for Exceptional Children, 1977.

A publication intended for pre- and in-service training of regular and special education teachers. Chapters cover emerging programs in school personnel roles and instructional procedures, emerging programs relating to early childhood, and present problems and issues that appear to hold strong portents for the future development of special education.

II. THE INSTRUCTIONAL PROGRAM, continued

K. VOCATIONAL EDUCATION

Department of Vocational Education. **Evaluating Programs for the Disadvantaged.** Colorado State University, Ft. Collins, 1976. ERIC Document ED 145217.

A study was conducted to develop a packet of individual instruments for use in evaluating and perfecting the effectiveness of all special vocational education programs in Colorado. Nine special programs located in schools in eastern Colorado were selected for the study. A literature review, on-site observations, and individual interviews were used to gather information for the development of the instruments. Nine instruments were developed and designed to measure general attitude, student attitude, vocational teacher attitude, special program information, related instructional material, attendance and tardiness, public relations, student follow-up, and special program follow-up. The completed instruments were tested by gathering data from selected students in three different types of programs which were represented in the nine programs included in the study. The nine instruments proved to have content validity and were concluded to be reliable. (All nine instruments are included in the appendix of this document.)

**Development and Evaluation of a Vocational Experience Curriculum for Educable and Disadvantaged Students,** Hardin County Board of Education, Elizabethtown, Ky., 1976. ERIC Document ED 142772.

A project was designed to measure the effects of integrating basic reading and mathematical instruction with prevocational instruction through the addition of a basic skills resource room, a technical simulation unit, and guidance and counseling to the ninth grade vocational experience program for educable mentally handicapped and disadvantaged students in four Hardin County, Kentucky, secondary schools. Research design involved pre- and post test measurements for the investigation of 20 null hypotheses in the areas of academic achievement, self-concept, and attitude toward work concepts to determine the differences between the experimental groups (participants in the expanded program) and the control group (participants in the existing curriculum). Third party evaluation showed that for the 20 hypotheses tested, every adjusted posttest mean of the treatment groups was higher than the corresponding adjusted posttest mean for the control group (with one exception) even though all differences were not statistically significant. Greatest statistical differences were found in the arithmetic portion of the treatment, which was directly connected with the resource room. Recommendations and guidelines based on the research are suggested for use by school administrators who develop exceptional vocational education programs. Attachments and appendixes contain forms, materials, and criteria used in the study and summative evaluation.

Doty, Charles R. and others. **Model for Calculating Cost per Pupil for Secondary Vocational, General and Transfer Curriculum in Comprehensive High Schools, Shared Time Vocational Schools and Full-Time Vocational Schools.** Department of Vocational Technical Education, Rutgers, The State University, New Jersey, 1976. ERIC Document ED 139914.

During the second phase of a project (see ED 114 494 for phase 1) a data collection and analysis model for determining the cost per pupil for vocational education programs was refined and tested in two comprehensive high schools, a shared time area vocational technical school, and a full-time area vocational technical school in New

Jersey. Investigators developed guidelines to enable the local administrator to efficiently and accurately use the model (1) to answer the question, What does it cost to educate one person in a selected program? and (2) to provide cost data to partially answer the question, What is the ratio of cost among college preparation education, general education, and vocational education? It was found that the per pupil cost for two years (1973-1975) for college preparation was $3,942; for general education, $4,036; and for vocational education, $4,800. For every dollar spent on vocational education, $0.82 was spent for college preparation and $0.84 was spent for general education. Despite a number of limitations of the study, it was concluded that the model seemed feasiable for obtaining accurate cost per pupil. The bulk of the report (241 pages) consists of appended supporting material including the key to financial accounting numbers used for program budgeting and accounting system, the key for traditional accounting system, and tables of data collected in the four schools studied.

Drescher, Johnston. **Attitudes and Achievement of Students in Area Vocational Programs Compared to Those in Satellite Vocational Schools(Secondary)**. Arizona State University, 1974.

This thesis compared a group of students enrolled in an area vocational school with a group taking similar courses in the vocational departments of a comprehensive high school district. Points of study were the students academic achievement and their attitudes toward institutions, school practices, and defined groups. The effects of ethnic origin, socioeconomic level, and intelligence on attitudes and achievement were also studied. In general the study found attitudes to be similar for the two groups and achievement higher for the satellite students, with variations due to the other variables.

"FHA Wants a Piece of the Action," **American Vocational Journal**, XLVI (September, 1971), 27-28, 30.

FHAers show they can set priorities, make decisions, and help develop curriculum.

Gearhart, Robert E. and Stephen McMillen. **A Study of a Two Hour Time Block in Industrial Education**. Newport Independent School District, Ky., 1977. ERIC Document ED 146427.

Hypotheses of a study of two-hour as opposed to three-hour training blocks for industrial vocational education students were as follows: (1) Achievement of students in a two-hour block for three years will be equal to that of students in a three-hour block for two years, (2) student attitudes toward themselves, school, and the world of work will significantly increase, and (3) there will be a significant decrease in dropout rates and absenteeism. Students in the two-hour vocational block classes at Newport High School (Kentucky) were matched (paired) with three-hour vocational block classes at vocational schools in the northern Kentucky area in parallel programs: printing, construction, electricity, mechanical drafting, and commercial art. Pre- and posttests administered to all at the beginning and end of the first year included the Ohio Trades Achievement Test and Bill's Index of Adjustment and Values. Comparisons were made between test results of high school juniors in each matched pair grouping, and dropout and attendance rates were examined for Newport students. No significant conclusions about the effectiveness of the two-hour block could be reached after the project's initial year. Recommendations for continuation of the study include focus on improving both the testing situation and communication between all parties.

Harris, George W. and O. Kenneth O'Fallon. **Cost Analysis of Secondary School Vocational Technical Education Programs**. Knoxville: Tennessee University, Bureau of Educational Research and Service, 1973.

Delivery costs per contact hour for secondary school vocational technical education in Tennessee were gathered from January to June 1973. A sample of six selected schools teaching 58 courses in 109 separate classes were used. Data were analyzed to determine direct and indirect costs per student contact hour for each course with and without consideration of site value, total cost per student contact hour per course, total cost of educating a student in each course, and projections of course and program costs for a five year period. Results are presented in tables and text. There was no evidence that size of school or geographical location was important in determining the cost level. Teachers' salaries were found to be the largest direct cost. Cost factors and projected costs reported in this study can be useful for planning and budgetmaking. Three additional studies are recommended. Terms are defined and forms used are given in appendixes.

Harris, Robert C. and Jin Eun Kim. **Cost-Effectiveness Materials for Locally Conducted Secondary School Vocational Education Program Investigations**. Indianapolis: Indiana State Board of Vocational and Technical Education, 1976. ERIC Document ED 130083.

The primary purpose of the project was to develop cost-effectiveness materials to be used in conducting locally directed secondary school vocational education program investigations. Based on a literature review, eight key elements in the cost-effectiveness system were identified and a conceptual model and data instruments for cost-effectiveness analysis for secondary vocational programs were developed. (These are published as a separate technical report.) This work resulted in an administrator's manual conceived as a self-instructional guide. (The manual is published as a separate document.) The model, data instruments, and the manual were examined by

research and evaluation experts and vocational administrators. The development of the cost-effectiveness and analysis model included (1) specification of program objectives, (2) identification of output indicators, (3) delineation of cost analysis, (4) presentation of mathematical formulas for computing cost-effectivenss measures, (5) presentation of five types of data instruments and forms, and (6) delineation of standard procedures for using the cost-effectiveness system.

Kim, Jin Eun. "Cost-Effectiveness Measures for Evaluating Secondary Vocational Programs," **Planning and Changing**, VIII (Summer, 1977), 90-102.

This paper provides cost-effectiveness measures that can be used for analyzing secondary vocational programs in terms of program effectiveness against cost-efficiency.

Kim Jin Eun and Robert C. Harris. **A Cost-Effectiveness Analysis Model for Secondary Vocational Programs**. Indianapolis Indiana State Board of Vocational and Technical Education, 1976. ERIC Document ED 130081.

A project was conducted to develop a cost-effectiveness model and data instruments to be utilized in the management of secondary vocational programs. Based upon reviewed literature, cost effectiveness analysis was conceptualized as an analytical technique and eight key elements were identified. The model that was then developed includes four major components: Vocational program classifications, program objectives and specifications, program outputs, and costs. Based upon the four components, the model was designed to generate three kinds of cost-effectiveness measures: (1) Program effectiveness, (2) Cost efficiency, and (3) cost-effectiveness ratio and/or performance ratio. Five kinds of data instruments were produced: (1) School corporation information, (2) secondary vocational instructional program data, (3) student follow-up program rating scale, (4) employers' option on vocational training of employees, and (5) vocational instructional program cost data. In addition, a standard procedure for using the model and data instruments was conceptualized as three primary activities: Planning, implementing, and utilizing. A project advisory committee and national advisory panel for the project reviewed materials developed by the project staff making conclusions and recommendations.

McLure, William P. "Pupil Weightings—Investment Differentials," **Journal of Education Finance**, II (Summer, 1976), 72-82.

Discusses the use of program cost analysis to identify cost differentials among educational programs that receive categorical state and federal funds. Using data from a recent Illinois study, calculates cost-per-pupil differentials among 22 special education programs and 18 vocational education programs.

McNelly, D.E. and H.C. Kazanas. "A Cost/Benefit Comparison of Cooperative Vocational and In-School Vocational-Technical Education Programs," **Journal of Industrial Teacher Education**, XIII (February, 1975), 62-73.

The study compared graduates of cooperative vocational education programs and graduates of in-school vocational-technical education programs in 12 Missouri secondary schools to determine their annual earnings differences, the benefit/cost ratios of the programs, and the relationship of selected socio-demographic variables to earnings. Cooperative education was economically more efficient.

NAM Public Policy Report. **Secondary Vocational Education.** Education Committee, National Association of Manufacturers, New York, N.Y., 1975. ERIC Document ED 122085.

An education committee task force of the National Association of Manufacturers conducted an in depth study of secondary vocational education and concluded that many of these programs are unable to adequately meet the occupational training needs of students or the manpower requirements of industry. Major weaknesses cited are: (1) too few students are receiving occupational training in areas where jobs are available or expected to be available, (2) problem of dropouts, (3) lack of program relevancy, (4) lack of student familiarity with the world of work prior to reaching high school, (5) lack of program flexibility, and (6) limited career counseling. Limited business and industry involvement in vocational education and unnecessarily high education requirements for jobs also are contributing factors. Cooperative education programs are considered valuable, but their expansion is impeded by union policy and local, State, and Federal laws. The summary report concludes with a policy statement incorporating several suggestions for improving the effectiveness of vocational education programs.

Nystrom, Dennis C. and James V. Hennessy. "Cost Differential Analysis: Providing Data for Added Cost Funding," **Journal of Industrial Teacher Education**, XIII (February, 1975), 53-61.

A1972-73 statewide study conducted in Illinois to develop a cost accounting system which facilitates cost differential ratios for secondary vocational education courses indicated that vocational programs are approximately twice as expensive as nonvocational. Specific cost elements identified in the study provided essential information regarding areas of greatest expense.

Pehrson, Patsy Ann. **An Assessment of Typewriting Skills in the Secondary Schools of the State of Utah in Relation to Job Entry Requirements.** Salt Lake City: Utah Research Coordinating Unit for Vocational and Technical Education, 1967. ERIC Document ED 018646.

The purpose of this study was to determine how many semesters of typewriting should be offered to an able student to attain employable skill. The influence of the following factors on typewriting achievement was studied—(1) student grade level, (2) class size, (3) school size, (4) length of class period, (5) use of manual or electric typewriters, (6) homework assignments, and (7) additional typewriting instruction. The students typewriting tests, typewritting II, second semester, of the United Business Education Association, were administered to 853 junior and 781 senior high school students selected throughout the state on a proportional, stratified random sample basis according to the size of the school. Federal Civil Service and Utah Employment Security employment standards were used to judge achievement level. Findings based on an analysis of variance of the data included—(1) a significant difference was found between the average gross-words-per-minute rate between first-, and second-, third-, and fourth-semester students with the rate increasing with each additional semester of instruction, (2) no significant difference was found between fourth-, fifth-, or sixth-semester students, and (3) 8.6 percent of the junior high school and 9.5 percent of the senior high school students tested met Federal Civil Service requirements. Some recommendations were that the fifth and sixth semesters of typewriting instruction be dropped, junior high students be permitted to take two semesters of typewriting, class length be 45 minutes, and classes have enrollments of 41 or more students.

**Secondary Vocational Education: Jointly Administered Programs.** 8th Annual Evaluation Report. Iowa State Career Education Advisory Council, Des Moines, 1977. ERIC Document ED 146422.

Focus in this evaluation report of Iowa secondary vocational education is on jointly adminstered programs—those contracted services which are established either between two or more secondary schools or between a merged area school and one or more secondary schools. The report is a synthesis and discussion of information gathered from field visits to five of the state's fifteen merged areas and from related research. Questions addressed are the following: (1) What are the historical, legal, and philosophical bases for jointly administered secondary vocational programs and their relationship to traditional programs in Iowa? (2) What are the primary characteristics of these programs? (3) What is the present method for reimbursing secondary programs in Iowa and what ways does this affect jointly administered programs? (4) How do state policies and plans, community attitudes, and current, critical issues confronting local school districts affect secondary vocational education in Iowa? (5) If jointly administered programs are a viable means of providing secondary vocational programs, what policies and plans should be considered to continue and expand them? Issues are identified with respect to each topic; selected opinions of administrators, teachers, students, and others are listed; and a summary of state-wide attitudes with regard to each issue is then presented followed by recommendations.

**A Study to Examine and Develop a Comprehensive Model of Identifying and Providing Realistic Vocational Education Experiences for Learning Disabled Students.** Saint Joseph College, West Hartford, Conn., 1976. ERIC Document ED 142804.

A study was conducted to (1) examine and evaluate existing vocational programs at the secondary level and to identify such programs or components of programs which appear to be meeting the needs of the learning disabled and the employer; and (2) share these findings with persons responsible for providing vocational education for learning disabled students at the secondary level. The following activities were utilized to secure data: (1) Fifteen meetings were held with representatives from key groups to learn the location of recommended programs; (2) thirty onsite visits of recommended programs were conducted; (3) special meetings about previously unknown programs were attended; (4) a mail survey requesting program information from schools referred to in the literature as providing vocational education or programs for secondary level learning disabled students was conducted; and (5) telephone discussions relative to program offerings were frequently conducted. Three of the 10 conclusions formulated follow, all of which were intended to serve as points for self-evaluation and future directions for schools developing a specialized program: (1) A great majority of the secondary level programs are simply a continuation of the academically oriented elementary and junior high programs; (2) a great majority of the programs are conducted under the direction of the special education department; and (3) regular secondary level vocational programs as a rule do not permit learning disabled students to enroll.

**A System for Analyzing the Cost of Operating Vocational Education Programs at the Secondary Level in Ohio.** Ohio State Department of Education, Columbus. ERIC Document ED 122073.

As a part of Ohio's program review and evaluation of vocational education, the report is concerned with a study of the costs of operating vocational education programs throughout the state. A cost analysis system for secondary level vocational education instruction programs was developed in 1970 and has been restudied each succeeding year. The system provides: (1) an internal analysis of the cost of operating a vocational education program among the expenditure categories of administration, supervisor vocational area, principal/director school, vocational texts and supplies, vocational shop laboratory equipment, other expenditures, and operation and

maintenance; and (2) a comparative analysis of the operating costs both by expenditure categories and by total costs among classes, taxonomies, kinds of school districts and program types in a management information system. A structured instrument was developed to collect instructional program costs data from local educational agencies. These summaries of expenditures for fiscal year 1974 are included in the report. The data generated are an important part of a management information system to help local agencies review vocational education program costs and to find ways of improving programs. Equipment depreciation tables, participating school districts, and cost manual sample pages are appended.

Tittle, Carol Kehr. **Evaluation and Decision Making: Developing a Method to Link Program Funding Decisions and Outcome Evaluation.** U.S., Educational Resources Information Center, ERIC Document ED 155 219, 1978.

Statements concerning the impact of vocational education programs on students, employers, and the State Department of Education—to be used as program evaluation criteria—were sorted into twelve outcome impact and nine predictive impact statements. Each statement was ranked and rated for importance by the decision makers. Results showed high agreement on the ranking and rating of outcome impact statements, and discrepancies on the predictive impact statements.

## III. THE MANAGEMENT OF DECLINE

### A. DECLINING ENROLLMENT

Abramowitz, Susan and Stuart Rosenfeld, eds. **Declining Enrollment: The Challenge of the Coming Decade.** Washington: National Institute of Education, 1978.

Alfred, Richard L. **Coping with Reduced Resources. New Directions for Community Colleges.** U.S., Educational Resources Information Center, ERIC Document ED 154 888, 1978.

American Association of School Administrators. **Declining Enrollment: What to Do.** Arlington, VA: The Association, 1974.

Arveson, Raymond G. **Implications of Decreasing Student Enrollments.** Paper presented at the American Association of School Administrators Annual Convention, Atlantic City, February 22-26, 1974.

Bailey, Jerry D., ed. **Declining Enrollments and School Closings.** U.., Educational Resources Information Center, ERIC Document ED 143 099, 1977.

The papers in this collection were presented at a midwest regional conference on enrollment decline and school closing. The papers deal with such topics as analyzing enrollment decline, examining trends in school enrollment and demography, and strengthening the educational program, as well as school facilities, public opinion and school closing, educational finance and budgeting, and ways of meeting decline. The major themes of these papers are the need for comprehensive planning and policy-making, community involvement, and the careful timing of decision-making. An evaluation of the conference is also included.

Berman, Paul and Milbrey W. McLaughlin. **The Management of Decline: Problems, Opportunities, and Research Questions.** The Rand Paper Series. U.S., Educational Resources Information Center, ERIC Document ED 147953, August, 1977.

This essay explores the issues arising from enrollment decline by examining the local school district context in which these issues must ultimately be resolved. The first section of this paper suggests that fluctuation in enrollment should not be treated separately from the continuously changing economic, political, and social environment of the district. The second section explores alternative school district responses to decline and argues that the key difference between effective management and simply holding the line lies in the capacity to manage change. The last section offers recommendations for a National Institute of Education agenda on problems of enrollment decline. Three phases of change management are discussed: mobilization of support, implementation of plans for retrenchment, and institutionalization of change efforts.

Boulding, Kenneth E. "The Management of Decline," **Change**, VII (June 1975), 8-9.

Brunetti, Frank. "Enrollment Decline: Major Issues for 1975," **CEFP Journal**, XII (July/August, 1974), 10-12.

California State Department of Education. **The Shrinking School District-A Preliminary Study of the Declining Enrollments in California School Districts K-12.** 1974.

Described in this report are the causes and the impact of declining enrollment in California School Districts.

Also presented is information on what is presently being done as a solution to this problem, a suggested course of action and information on early retirement for teachers.

Cronin, Joseph M. "The Decline of the School as an American Priority," **National Elementary Principal**, LIII (May/June 1974), 39-42.

Deckber, Erwin. "The Shrinking Schools," **California School Boards**. XXXIV (February 1975) 28-30, 32-33.

**Declining Enrollment**. Research Report. Evanston, Ill.: National School Boards Association, 1976.

Population growth in the United States has declined since the early 1970's. As a result of the lower birth rate and changing migration patterns, approximately one-third of the school districts in the country have experienced some drop in enrollment. Smaller districts are the hardest hit by enrollment decline, since they are less able to absorb the loss of per-pupil financial support. In addition to the financial impact of lower enrollments, problems arise in staffing, building utilization, and school-community relations. When enrollments drop, some reduction in staff may be necessary; underutilized schools may be forced to close, or alternative uses for free space must be found, and the community must be prepared for the changes in program and attendance boundaries that enrollment decline sometimes necessitates. For those districts not yet faced with an immediate enrollment crisis, long-range planning is absolutely essential to ease the transition from population explosion to decline. Planning must be based on local data, not on state, regional, or natural information. Constructive alternatives to reduction in force and school closure are outlined in this report.

**Declining Enrollment Conference Report**. U.S., Educational Resources Information Center, ERIC Document ED 144 229, June, 1977.

This report summarizes the results of a conference on declining enrollment sponsored by the Arizona State Department of Education. Topics covered include school closing, budget implications of declining enrollment, staffing problems and reduction in force, board of education and community support, problems of small school districts, and alternative building uses. The Arizona State Department of Education lists suggestions for maintaining community support during the decision-making process necessitated by declining enrollment, including utilization of citizens' committees, increasing communication, dissemination of relevant information, and conducting a needs assessment. The results of a declining enrollment needs assessment conducted among conference participants is appended, as well as enrollment statistics for Arizona school districts.

**Declining Enrollment: Current Trends in School Policies and Programs**. Arlington, VA: National School Public Relations Association. U.S., Educational Resources Information Center, ERIC Document ED 130 450, 1976.

Declines in student population are a fact of life in most of the nation's school districts. With the declines come unprecedented challenges and opportunities; sensitive community relations problems involved with school closings; costs that continue to rise despite the decline in student numbers; the need for staff reductions; the need for comprehensive advance planning involving both staff members and the community; lower teacher-student ratios and more room available for educational alternatives. Based on a nationwide survey of school districts, the report includes guidelines for making accurate enrollment projections; involving the staff, students, and community in planning and finding solutions; using alternatives such as magnet schools and clusters to help defuse the often emotionally charged atmosphere; and developing and maintaining a good public information program. The report features five case studies of districts that have met and solved their first rounds with declining enrollment.

**Declining Enrollment: Implications for South Carolina School Districts**. U.S., Educational Resources Information Center, ERIC Document ED144 254, October, 1977.

Continuing enrollment decline will affect South Carolina school districts in varying degrees during the next five to ten years. Demographic forecasting will remain an essential element in predicting the degree to which specific districts will be affected by enrollment changes. Every district will need to build a data base and develop the capacity for detailed analysis of local conditions in order to formulate effective policy. Planning for the future is absolutely essential for every South Carolina school district. This booklet reviews the broad scope of problems associated with enrollment decline, including the areas of staffing, instruction, finance, and facilities, as well as school closing and school community relations.

Dinkelmeyer, Robert J. and John J. Hudder. **Declining Enrollments: A Survey of the States and Selected School Districts**. Syracuse, New York, Syracuse Research Corporation.

Ellsworth, David F. **Early Retirement: A Proposal for Adjustment to Declining Enrollments**. Springfield: Illinois State Office of Education. U.S., Educational Resources Information Center, ERIC Document ED 149435, 1977.

This study focuses on the benefits of early retirement as a policy to ease the adjustment process as public school districts and state universities encounter the problem of declining enrollments. Early retirement as one means of reduction in force, and as a means of saving money, has been adopted by 36 Illinois school districts. This paper examines a retirement policy that allows members of the Teachers' Pension and Retirement Fund of Chicago and the Teachers' Retirement System of Illinois who have 20 or more years of service to retire at age 55 without a discount of their pension annuities.

Eisenberger, Katherine E. "Enrollment Down-Budgets Up: A Closer Look," **Lutheran Education**, CXI (November/December, 1975), 70-78.

Erickson, Kai L. "Some Suggestions to Soften a Somber Economic Picture for Teachers," **Phi Delta Kappan**, LVI (March, 1975), 473.

Florio, David H. **Declining Enrollment.** An NSBA Conference Report. U.S., Educational Resources Information Center, ERIC Document ED 149 481, August, 1976.

This report results from a National School Boards Association (NSBA) conference on declining enrollment and from a survey of state school boards associations conducted in advance of the conference. The conference drew school board leaders and school administrators together with population experts to achieve several purposes that are reflected in the chapters of this report: to share their understanding of declining enrollment; to provide state school boards associations with suggestions of how they might help local districts; to provide NSBA with suggestions of how it might help state associations and local districts; and to raise issues and questions that the National Institute of Education (NIE) should consider as it shapes its agenda for dealing with enrollment change.

Fowler, Delbert H. **Declining School Enrollments.** U.S. Educational Resources Information Center, ERIC Document ED 151920, February, 1978.

Declining enrollment means that school districts must engage in thoughtful, thorough planning to cope with this trend, according to the author. His paper outlines a process for school closing, including ways to involve the community in the decision-making process, thereby reducing the likelihood of community conflict and preserving the school district's credibility. This paper also briefly outlines suggestions for reducing school staffs, utilizing surplus space, conserving resources, handling student transportation problems, mustering support for board of education decisions, and implementing the board's plans for coping with decline.

Goettel, Robert J. and others. **The Imperative of Leadership.** Denver: National Association of State Boards of Education, 1976. ERIC Document ED132 742.

The authors of this report argue that state boards of education must play an active part in assisting local districts with planning for enrollment decline. The authors review statistical data showing that enrollment decline in big city schools is generally worse than in other areas. State boards must be prepared to help districts that stand to lose state aid because of fewer students. But declining enrollment aid provisions should be directed only at those districts with the highest rates of decline. The authors also suggest that districts encourage retirement for school staff by lowering the retirement age and by eliminating penalties for early retirement. In-service training should be provided to keep the staff informed. State boards should provide technical assistance to local districts to encourage more effective management of limited resources. A list of recommendations directed at state board of education members supplements this report.

Goettal, Robert J. and Robert E. Firestine. "Declining Enrollments and State Aid: Another Equity and Efficiency Problem," **Journal of Education Finance**, I (Fall, 1975), 205-215.

Hickrod, G. Alan and Others. **Enrollment Change and Educational Personnel Change in the K-12 Schools of Illinois.** U.S., Educational Resources Information Center, ERIC Document ED 128 917, March, 1976.

At present, there are no viable models of organizations in decline; all sociological and economic theories deal with growing, expanding organizations. However, as the statistical data from Illinois school districts indicate, declining enrollment and reduction in force are pressing problems. This statistical analysis contains data on population, tax bases, property appraisal, salary, pupil/teacher ratios, teacher/administrator ratios, and community types. These variables were correlated to determine the trends and patterns in enrollment decline in Illinois. Data from Chicago were not included. The authors recommended changes in Title I weighting to relieve urban districts undergoing enrollment decline and changes in student clientele. They assert that reductions in administrative staff should keep pace with both enrollment decline and teacher reduction. The teacher/administrator ratios discovered in this study could perhaps be used as guidelines for reduction in force. They suggest that the state provide financial assistance to districts hardest hit by declining enrollment and reduction in force.

Jascourt, Hugh D. "The Role of Negotiations in the Equation 'Declining School Enrollment Layoffs: An Overview." **Journal of Law and Education**, VII (April, 1978), 239-43.

Keough, William F., Jr. "Early Warning Signs of An Enrollment Drop", **School Management**, XVIII (August/September, 1974), 32, 36-37, 42.

Keough, William F., Jr., "How to Make the Best of Your School District's Enrollment Slide," **American School Board Journal**, CLXII (June, 1975), 40-43.

Lucas, John T. "Coping with Declining Enrollments," **School Business Affairs**, XLIII (July, 1977), 149-151.

**Managing School Districts with Declining Enrollment.** University of Minnesota: Bureau of Field Studies, April, 1976. ERIC Document ED 128918-4.

Declining enrollment in Minnesota schools is the subject of this collection of five case studies and one planning manual. The information in the manual and in the case studies of representative school districts is published together to provide persons interested in overall state policy with examples in enough detail to provide a sense of what is happening in districts differing in population and composition. The nature of the problems arising from declining enrollment suggests that the district level is the appropriate one for decision-making. Enrollment decline has brought about the demise of the expansive, innovative mood in Minnesota schools, as the case studies indicate. Program innovation is not as easily accepted, and school personnel are increasingly worried about job preservation. In some districts, the number of administrative personnel has been reduced to such a point that the time and energy for effective planning are no longer available. These materials were prepared for use by school superintendents and school boards for local school district planning.

**Michigan's School Enrollment Decline: Projections and Implications.** U.S., Educational Resources Information Center, ERIC Document ED 145 546, 1977.

This report represents the efforts of the Task Force on Declining Enrollment, created by the Michigan Department of Education, to provide information and recommendations for effective planning and policy formation for the state department of education, Michigan school administrators, and local school boards. The task force and its report were created in response to the severe enrollment decline suffered by many Michigan school districts since 1972. The report covers four areas: (1) school finance, including state aid options and techniques for saving district dollars, (2) staffing, including reduction in force and staff planning guidelines, (3) educational facilities, including school closing guidelines, and (4) enrollment projections, including statistical data and projection techniques. Appendixes cover state aid provisions for declining enrollment in other states, projections of instructional staff for special education, and pertinent court rulings on staff reductions.

Nassau, Stephen M. "The Role of Negotiations in the Equation 'Declining School Enrollment=Layoffs': A Union Perspective." **Journal of Law and Education**, VII (April, 1978), 265-278.

Discusses possible collective bargaining provisions for dealing with the economic impact of declining public school enrollments, with particular attention to considerations involving the reduction in force of teachers. Presents the National Education Association's proposed contract language governing reduction in force procedures.

**Retrenchment in Education: The Outlook for Women and Minorities.** Denver, Colo.: Education Commission of the States. U.S. Educational Resources Information Center, ERIC Document ED 141 954, May, 1977.

This booklet summarizes the available information on the reasons for and the extent of the effects of declining enrollment and inflation-strained budgets on women and minorities in education. The combined impact of inflation and recession has led to the reassessment of priorities and the curtailment of services known in elementary and secondary education, as well as in post-secondary education, as retrenchment. Although information in some areas is incomplete, the data contained in this report indicate trends in reduction in force, the granting of tenure, unemployment, collective bargaining, and the demand for teachers, as well as employment trends among women and minorities. The authors conclude that more successful remedies to eliminate inequities affecting women and minorities must be found.

Rodekohr, Mark and Carol Rodekohr. "A Study of the Effects of Enrollment Decline," **Phi Delta Kappan**, LVII (May, 1976), 621-23.

Districts with declining enrollments spent about $200 more per student than the growing districts, and about three fewer students per teacher, averaged about $500 less in average teacher salaries, had a lower dropout rate, and had higher achievement scores.

Sargent, Cyril G. "Fewer Pupils, Surplus Space: The Problem of School Shrinkage," **Phi Delta Kappan**, LVI (January, 1975), 352-57.

Sebulsky, Wayne L. and others. "What Are Schools Doing?" **NASSP Bulletin**, LXI (March, 1977), 59-67.

Principals, assistant principals, and headmasters tell how their schools are coping with declining enrollments.

Spenla, William A. and others. "The Role of Negotiations in the Equation 'Declining School Enrollments—Layoffs: A Management Perspective." **Journal of Law and Education**, VII (April, 1978), 243-63.

Discusses economic and legal issues related to declining public school enrollments and pressures for "reduction in force" (RIF) of teachers. Reviews developments involving RIF cases in New Jersey and Yonkers, New York. Recommends school boards not agree to contracts that limit their ability to lay off personnel for economic reasons.

Thomas, Donald. **Declining Enrollments: A People Problem.** U.S., Educational Resources Information Center, ERIC Document ED 136375, 1977.

Declining enrollment almost inevitably means reduction in force—specifically, in the number of teachers. The author of this paper maintains that this process need not be as traumatic as some think. He suggests basing teaching personnel needs on midyear enrollment projections, rather than on first-of-the-year projections, since the number of students always declines as the year progresses. He lists six strategies for staff reduction that can help districts minimize terminations due to declining enrollment: (1) Adopt an early retirement plan; (2) Adopt aggressive procedures for termination of teachers who cannot provide satisfactory services; (3) Work with neighboring school districts that are experiencing enrollment growth; (4) Develop a trained corps of substitutes; (5) Encourage everyone in the district to become aggressive in obtaining money from government and private sources; and (6) Train secondary teachers for elementary positions.

Thomas, Donald. **Five Ways to Save Money with Declining Enrollments.** U.S., Educational Resources Information Center, ERIC Document ED 117831, 1975.

Strategies are offered to assist school districts with declining enrollments in dealing with surplus space and restricted funds. Teachers can be hired on the basis of midyear projections; also some teachers can be employed on a one-semester basis. Considerable savings can be obtained by renting out surplus classrooms and office space to other governmental agencies and to private firms. Districts are advised to utilize each school as fully as possible and dispose of all empty buildings. Early retirement programs assist older teachers to have economic security, save the schools money, and release jobs for younger teachers. Savings can be effected by decentralizing budget accounts. The accounts establish limits for services and products, making the local school unit accountable.

Thomas, M. Donald. "Declining School Enrollments." **School Business Affairs**, XLIV (January, 1978), 6-8.

Discusses problems public schools will encounter as a result of the decline in school enrollment and suggests some practical strategies and techniques that will help school administrators solve these problems.

Weldy, Gilbert R. **Enrollment Declines and Reductions in Force—What Can Administrators Do?** U.S., Educational Resources Information Center, ERIC Document ED 150 731, February, 1978.

A principal from a district experiencing a sharp enrollment decline discusses some of the implications of the decision to close one of three high schools. The board policy developed to meet the challenge includes consideration of maintaining the quality of the educational program, the retention of tenured faculty, and the disposition of property. The issues facing the principal include a stabilized faculty that allows for no new blood, the problems inherent in the withdrawal of faculty from coaching and sponsoring extracurricular activities, apprehension in the faculty over their jobs, the difficulties in transferring teachers, and the need to make the programs in the merging schools compatible.

III. THE MANAGEMENT OF DECLINE, continued

B. EARLY RETIREMENT

Barfield, Richard E. and James N. Morgan. "Trends in Planned Early Retirement," **Gerontologist**, XVIII (February, 1978), 13-8.

A national personal interview survey, repeating the core questions asked 10 years earlier on retirement plans, finds the previously recorded "age effect" to be apparently neither an age nor a cohort effect. Indeed, the new data point toward a "period of history" effect dominating changes in plans to retire early.

Cooper, Frayda. "Set Retirement Goals Early," **Instructor**, LXXXVI (March, 1977), 46-8.

"Retirement does not change a person, it only makes a person more of what he or she has been," says the author. As a book editor who has worked with the elderly and taught preretirement courses, she provides sound advice for the teacher about to retire.

Ellsworth, David F. **Early Retirement: A Proposal for Adjustment to Declining Enrollments.** U.S., Educational Resources Information Center, ERIC Document ED 149435, April 1977.

Illinois State Office of Education, Springfield. Dept. of Planning and Research.

This study focuses on the benefits of early retirement as a policy to ease the adjustment process as public school districts and state universities encounter the problem of declining enrollments. Early retirement as one means of reduction in force, and as a means of saving money, has been adopted by 36 Illinois school districts. This paper examines a retirement policy that allows members of the Teachers' Pension and Retirement Fund of Chicago and the Teachers' Retirement System of Illinois who have 20 or more years of service to retire at age 55 without a discount of their pension annuities.

Fowles, Donald G. **Some Prospects for the Future Elderly Population.** Washington: Administration on Aging, 1978. ERIC Document ED154319.

This publication brings together a large number of facts and statistics about the country's growing population of older adults. Data indicate that regardless of their economic situation, the elderly population will not only be growing rapidly in the future but will be changing rapidly as well. The trend toward early retirement coupled with longer life expectancy will mean many more years of retirement. The increasing proportion of elderly who will fall in the over-75 and over-85 age groups will require additional resources to handle the physical and emotional problems which occur more frequently in these age groups. The growing proportion of women, many of whom will be widowed and living alone, will require additional resources to meet their social needs. The rising numbers of elderly who live alone will require housing alternatives to institutionalization in order that they may continue to live independent lives while learning to cope with physical informities. The nation's population as a whole, as it becomes progressively older in composition, must learn to deal with the changing needs of its members.

Haynes, Suzanne G. and others. "Survival After Early and Normal Retirement," **Journal of Gerontology**, XXXIII (March, 1978), 269-77.

Describes an epidemiological study of the patterns and correlates of survival after early (age 62 to 64) and normal retirement (age 65). Death rates were significantly elevated during the first, fourth, and fifth years after early retirement. Pre-retirement health status was the only significant predictor of survival after early retirement.

Heidbreder, Elizabeth M. **Cancelled Careers; The Impact of Reduction-in-Force Policies on Middle-Aged Federal Employees.** A Report to the Special Committee on Aging, U.S. Senate. Washington: Government Printing Office, 1972.

A study, requested by Senate Special Committee on Aging, to investigate reports that middle-aged Federal employees were currently being forced out of Government and to determine the need for immediate reassessment of personnel policies, particularly early retirement policies, is presented. Availability of statistical data on retirements and separations varied among Government agencies. The Civil Service Commission was the source of most statistical data. Information was obtained from employee union representatives, individual employee and published reports. Unit Headings are: The Federal Government Cuts Jobs; Early Retirement—Voluntary or Involuntary?; The Post Office Reorganizes; Reductions in Force and Older Employees; Training of Older Employees; Conclusions and Recommendations.

Jacobs, H. Lee and others. **Education for Aging: A Review of Recent Literature.** Washington: Adult Education Association of the U.S.A., 1970. ERIC Document ED038552.

This literature review covers studies and reports on a wide range of behavior patterns relative to the aging process. While most of this work deals with education for aging in terms of adult problems and interests, attention is also given to developments in early life experience and in attitudes which tend to set the pattern for later life characteristics. Respective chapters focus on learning characteristics and abilities for older adults; existing opportunities and remaining areas of need for education on aging in the educational system; job retraining and other kinds of informal educational opportunities; and factors germane to preparing for retirement. Annotated chapter bibliographies (a total of 237 times) also appear. Instructions for ERIC document ordering are furnished.

Kelly, Diane and Carl V. Patton. "Reactions to Induced Early Retirement," **Gerontologist**, XVIII (April, 1978), 173-8.

This paper analyzes the decisions and experiences of 52 academics from four universities who agreed to retire early because of increased annuities or substantial lump-sum severance payments. Only one respondent was dissatisfied with his decision to retire early; 73 percent were very satisfied.

Kelleher, Carol H. **Second Careers: A Selected Bibliography**. Washington: National Council on the Aging, Inc., 1973.

The 50-item bibliography consists of annotated selections divided into these sections: mid-career change, retiring military personnel, post-retirement careers, and guides and manuals and other practical information. The section on mid-career change covers voluntary career switches by people wishing to alter the focus of their working life, as well as changes that are focused on an individual by the decline of an industry or by early retirement from a civilian or military career. Included under post-retirement are new careers begun by retirees bored with inactivity or by older persons who find pensions inadequate and need the additional income from wages. Volunteer work after retirement is also treated as a second career. Literature is included that discusses both men and women who seek second careers during their working life, without any sex differentiation. The topic of women who take outside jobs after a lengthy period of child-rearing is dealt with only incidentally. Some works with practical information for those persons seeking to change occupations or to start a business are also listed.

Koehler, Michael. "Early Retirement: Everybody Wins," **Clearing House**, XLIX (December, 1975), 152-3.

Article described an early retirement program designed to provide a creative alternative to the intracability caused by disenchanted or disabled teachers.

Levitin, Teresa E. and Robert P. Quinn. **Work Commitment through the Life Cycle**. Paper presented at the Annual Meeting of the American Psychological Association, Chicago, 1975. ERIC Document ED 119044.

Data obtained from a national, cross-sectional survey of the American work force were used to examine the relationship between age and an interview measure of psychological involvment with work (i.e., paid employment). For men, this relationship was curvilinear. Commitment began at a low level among the 16-20 year old men—rose to its highest point among those 30-44 years old, and then declined back to its initially low level among those 55-65 years old. Age was not significantly related to the work commitment of women. Changes in quality of employment through the life cycle were, for men, found to be one determinant of correspondence changes in work commitment. No matter how good or bad men's jobs were in the early part of their working lives, most men ended up with a fairly low degree of commitment just prior to the retirement age. The concept of anticipatory desocialization from the work role was used to explain the latter finding.

Oregon State Dept. of Education. **School Employees Retirement. Suggested Personnel Policy Guidelines for School Districts**. U.S., Educational Resources Information Center, ERIC Document ED 128950, 1976.

This document was developed to help school administrators plan procedures to assist district staff prepare for retirement. A district is not required to offer the services suggested in these pages. Furthermore, this document is not intended for and should not be used as a handbook or guide to be given to district employees. However, a district may find that the services outlined here may be a significant contribution to teacher welfare. The major services outlined are an introduction to retirement planning, early preparation for retirement, and preretirement counseling.

Patton, Carl V. "Early Retirement in Academia: Making the Decision," **Gerontologist**, XVII (August, 1977), 347-53.

Retirees and current employees of the University of California were surveyed about their retirement experiences and plans. Employees who retired prior to the mandatory age were more satisfied with their decisions and fared better financially than the mandatory age retirees.

Pollman, A. William and Alton C. Johnson. "Resistance to Change, Early Retirement and Managerial Decisions," **Industrial Gerontology**, 1 (Winter, 1974), 33-41.

Although older persons tend to have more difficulties in learning situations than younger people, questionnaires completed by United Auto Workers Union members between the age of 60 and 65 indicated they were able to adjust to employment changes when properly motivated and trained.

Quinn, Joseph F. "Microeconomic Determinants of Early Retirement: A Cross-sectional View of White Married Men," **Journal of Human Resources**, XII (Summer, 1977), 329-346.

The Social Security Administration's Retirement History Study was used to study the microeconomic determinants of early retirement among white married men aged 58-63. Factors analysis of personal and financial characteristics, local labor market conditions, and certain job attributes revealed that Health status and eligibility for pensions are the most important determinants.

Stagner, Ross. "The Affluent Society Versus Early Retirement," **Aging and Work: Journal on Age, Work, and Retirement**, I (Winter, 1978), 25-31.

After noting the need for compromise between the economic and psychological considerations relevant to public policy on mandatory or early retirement, the author suggests policy modifications that may be beneficial to individual workers and the total American society (e.g., artisan production as self-expression, social services as a second career, and modified social security rules).

Steen, Wesley W. "Employee Benefit Reporting After ERISA (Employee Retirement Income Security Act)," **Louisiana Law Review**, XXXVI (Summer, 1976), 867-95.

The statutory reporting requirements of ERISA and some of the regulations recently promulgated are discussed. All types of employee benefit plans are covered. For journal availability see HE 508 741.

Stetson, Damon. **Starting Over.** New York: Macmillan Publishing Co., Inc., 1971.

The author explores the self-realization opportunities possible through second careers as well as the uncertainties and hazards involved in such a major life change. Numerous examples of middle-aged second careerists are included in the book as well as some classic examples. There is no set pattern of career changing in mid-life; new directions and the reasons for shifts are as diverse as the people. The book opens the door to those who feel "bound to their wrong choice, caught in a dead end, and/or victimized by the rat race. One chapter focuses on the need to train people for a cluster of occupations in our technologically changing society that suggests more job changes for the future. Disillusionment with materialistic values and the trends toward social service are often motivating factors for second career choices of a more altruistic endeavor. More women than ever are looking forward to or moving into second careers; retirement, and today's trend toward early retirement, is yet another life stage that can launch a second career. This intimate glimpse at the lives of hundreds of men and women who began new careers (and the psychologists, family counselors, and employment agents who advised them) provides encouragement and identification for those seeking a similar choice.

Walker, James W. "Will Early Retirement Retire Early?" **Personnel**, LIII (January/February, 1976), 33-39.

Management should recognize and consider both the advantages of early retirement programs and the countervailing forces of financial conditions, individual attitudes, and age discrimination laws.

Walker, James W. and Karl F. Price, "The Impact of Vesting, Early Retirement, Rising Costs of Living and Other Facts on Projected Retirement Patterns: A Manpower Planning Model," **Industrial Gerontology**, I (Summer, 1974), 35-48.

III. THE MANAGEMENT OF DECLINE, continued

C. REDUCTION IN FORCE

Commission on Civil Rights. **Last Hired, First Fired: Layoffs and Civil Rights.** U.S., Educational Resources Information Center, ERIC Document ED 137503, 1977.

The effects of the 1974-75 economic recession on the effort to ensure equal employment opportunity for the Nation's minority groups and women are examined in the first section of this report, which documents the layoff of disproportionately large numbers of minority and female workers during the recession, generally resulting from the fact that many were only recently hired and thus had earned little seniority. It is concluded that the recession seriously eroded affirmative action gains of recent years, frustrating the intent of Title VII of the Civil Rights Act of 1964, Executive Order 11246, as amended, and other programs enacted to help minority and female workers narrow the historic economic gap between them and white male workers. The likelihood of continuing high unemployment and future economic slowdowns, which threaten not only vulnerable minority and women workers with low seniority, but many white males, particularly youths, as well, is analyzed. The social costs of such unemployment, particularly that involving job losers and discouraged workers are described. Two sections of the report discuss layoffs and seniority and review the legality of layoffs by seniority when disproportionate numbers of minorities or women are affected. Alternatives to layoffs are explored in the fourth section, some of them already widely practiced in Western Europe and by some industries in the U.S. (e.g., reduction of hours, early retirement, rotation of layoffs, cuts in cost other than wages). In the concluding section suggestions are made for explicit Federal guidelines by the Equal Employment Opportunity Commission with regard to the "last hired, first fired" conflict based on the principle that all seniority-based layoff policies should be invalid as they apply to any work force that does not mirror the relevant labor market and the composition of which cannot be explained successfully by the employer.

Custis, Jerry. "Staff Cuts: Maybe They're Inevitable But They Don't Have to be Bloody." **Updating School Board Policies**, IX (March, 1978), 1-4.

Points out the need for a board policy on reduction in force and explains the four basic policy questions to be addressed in creating the policy and six traps to be avoided.

Ditzhazy, Helen E.R. **The Principal and the Law: Suspensions and Reductions in Staff.** U.S., Educational Resources Information Center, ERIC Document ED 137 987, January, 1977.

The first part of this paper deals with teacher suspension and dismissal as tools for correcting teacher behavior. Three cases involving teacher discipline are examined, one leading to resignation, a second to improved teacher behavior, and a third to a tenure hearing and dismissal. Part 2 of this paper examines the need to reduce staff when districts face declining enrollment, as well as disposition of school buildings and school closing. Failure to recognize the problems associated with declining enrollment could lead to the demise of the public schools as an institution. Some methods for coping with enrollment decline are presented.

Downey, Gregg W. "What School Boards Do When That Irrestible Force Called RIF Meets That Immovable Object Called Affirmative Action." **American School Board Journal**, CLXIVV (October, 1976), 35-39.

Haun, Francis R. **Reduction in Force: Is Your Board Prepared?** U.S., Educational Resources Information Center, ERIC Document ED 154 524, April, 1978.

"Job Security Is Coming to the Fore as a Teacher Issue." **Salary and Merit**, (January, 1977), 5-6.

Examines the modified "no reduction in force" clause included in the three-year teachers' contract negotiated in the West Milford (New Jersey) School District and discusses its possible implications for future teachers' contract negotiations. Available from: Salary and Merit, Suite 908, 1835 K Street N.W., Washington, D.C.; $2.50 single copy.

Kalvelage, Joan and others. "Reductions in Force and Affirmative Action." **Educational Economics**, III (January-February, 1978), 12-14, 23.

By allowing permanent, part-time work and by creating positions for job sharers, school districts can redistribute available positions among current employees without reducing their numbers. Available from: Capla Associates, 18 Overlook Avenue, Rochelle Park, New Jersey 07662.

Kelley, Edgar A., ed. **Reduction in Force: Policies, Practices and Implications for Education.** Lincoln, Nebraska: University of Nebraska, 1978.

Morse, H. Ogden. "Whom Shall We Fire?" **NASSP Bulletin**, LXI (February, 1977), 76-78.

Argues that when declining enrollment necessitates a reduction in teaching staff, nontenured teachers should not always be the ones fired. Presents evaluation criteria for adminstrators to use in deciding which teachers to fire.

Nolte, M. Chester. "Follow These 'How to's' When You Must Cut Your Staff." **American School Board Journal**, CLXIII (July, 1976), 26-27, 45.

Presents seven bits of general advice on how to go about reduction in force.

Powell, Janet F. and Suzanne K. Stemnock. **Local Policies for Reduction in Force.** Arlington, VA: Educational Research Service, Inc., 1975.

With declining enrollments and the tightening economy outdistancing the process of normal staff attrition, more and more administrators are faced with the painful process of informing professional employees that their services are no longer required. Higher education officials are taking steps to make student-teacher programs more competitive and school finance experts are seeking ways to bolster budgets in the wake of tax rejections by voters. Nevertheless, school administrators are left with a problem needing immediate as well as long-term solutions. When circumstances mandate reductions in force, seniority traditionally has been the major criterion used in determining the retention of employees. Seniority has come under fire, however, as nontenured teachers have gained job-security rights of their own through litigation. The seniority issue is further clouded by court-mandated minority hiring requirements. This Information Aid presents a list of items to consider regarding the possibility of a staff reduction and includes examples of district policies and negotiation agreement provisions from 16 school districts throughout the country.

**Reduction in Force: Suggested Personnel Policy Guidelines for School Districts.** Oregon State Department of Education. U.S., Educational Resources Information Center, ERIC Document ED 137 904, February, 1977.

This publication is intended to help local school boards and administrators plan the procedures to be followed should a district face a need to reduce its staff. After presenting definitions, the authority of local districts to reduce personnel, and the appropriate Oregon statute on the subject, the document discusses two major areas of

concern in the development of a reduction in force plan. One area, factors to be considered, includes needs of students, equal employment opportunities, student activities, minimum standards, position descriptions, merit, seniority, and terms of current bargaining agreements. The second area, details of the plan, is concerned with determination of needs, decisions on the positions to be eliminated, procedures for reducing personnel, grievances, and recall to employment. A list of resources—both printed and Oregon agency personnel—is included.

III. THE MANAGEMENT OF DECLINE, continued

D. SCHOOL CLOSURES

Andrews, Richard L. **The Environmental Impact of School Closures.** Seattle: University of Washington, 1974.

Bornstein, Leonard. "The Effect of Efficiency Factors in Determining School Closings." Unpublished Doctoral Dissertation. Rutgers University, 1977.

Eisenberger, Katherine E. "Closing a School: Some Ways to Ease the Trauma," **School Management**, XVIII (August/September 1974), 33-36.

Thomas, Donald. "Strategies for Closing a School, Reducing Staffs," **NAASP Bulletin**, LXI (March, 1977), 8-19.

# APPENDIXES

Appendix A

# PREPARING THE BUDGET

## Introduction

### Certifying Board

The board of education of the school district is a certifying board. This means it has the authority and obligation to certify the tax to be levied and the amount of money to be collected by taxes to the levying board. The levying board in this case is the county board of said county.

### Fiscal Year for School Districts

The fiscal year for school districts consists of a period of twelve months beginning on the first day of September. The budget which is certified to the county auditor is for the period of twelve months beginning on the first day of the fiscal year. However, local property taxes are collected on a calendar basis for January 1 to December 31. Therefore, tax levies certified by a district will not yield revenue to the school district until early in the following year.

### Limitations on General Fund Tax Levy: Approval for Emergency Increases

The aggregate school tax levied for general school purposes in school districts is without restriction. However, in Class I and II districts fifty-five percent of the qualified electors present and voting at a special election or meeting must approve any levy over 12 mills. (79-342; 79-904; 79-1007.01).

In the summer of 1978 the Unicameral adopted legislation to limit ad valorem (property) tax increases. Government taxing units, including school districts were limited to no more than a seven percent increase in property taxes over the amount levied the previous year or to the average such increase for the immediate past three years, whichever was greater. The limitation could be adjusted upward in proportion to the amount by which enrollment increases exceeded five percent or overridden by approval of a majority of the district's voters.

### Filing of Budget Estimate, Notice of Hearing

The school board is required to file in writing a proposed budget statement with its secretary on forms prescribed and furnished by the state auditor. After the proposed budget is filed, a notice of a public hearing together with a summary of the proposed budget statement is required to be published at least five days prior to the date set for hearing in a newspaper of general circulation within the governing body's jurisdiction. The hearing date must be no later than August 31. After the hearing, the budget must be adopted or amended. If the adopted budget reflects a change from that published, a summary of the changes must be published within 20 days of adoption, but without provision for hearing, stating the changes and reasons for changes. (23:921-933).

### Requirements of Budget

The proposed budget should contain the following estimates: (23:923).

1. For the immediate fiscal year, revenue from all sources other than taxation allocated to each fund and the unencumbered cash balance at beginning and ending of the year. Also the amount received by taxation allocated to each fund, and the amount of actual expenditure for each fund.
2. For the current fiscal year actual and estimated revenue from all sources, amounts proposed to be expended during the year plus the amount of cash reserve.
3. For the immediate ensuing fiscal year an estimate of all revenue from all sources, amounts proposed to be expended during the year plus the amount of cash reserve.

**Adopted Budget**

After the budget hearing the school board should file with and certify to the levying board on or before September 1 and file with the state auditor a copy of the adopted budget statement together with the amount of tax to be levied. Proof of publication should be attached (23-927).

At the same time the school board should deliver a copy of the adopted budget statement to the county superintendent and to the county clerk for use of the county board of equalization of each county in which any part of the district is situated. (79-435).

**Protest to Budget**

The decision of the school board regarding a proposed budget may be appealed within thirty days after the adopted budget statement has been filed with the levying board. Such action must be filed in the district court in the county in which the school is located. However, such action should be based either upon a violation of or a failure to comply with the provisions and requirements of law by the school board. In response to such action the school board should show cause why the budget statement should not be set aside, modified, or changed. (29-930).

**Budget Amendments**

There is no way to increase the amount of money to be raised by taxation once the budget has been adopted and certified. However, a budget may be amended to increase appropriations and expenditures provided such increase can be financed by registered warrants to be paid during the fiscal year.

Emergency amendments may be considered and adopted any time during the fiscal year by filing, publication, and hearing as required by the original budget. At the hearing any taxpayer may file a written protest. Upon approval of the supplemental budget the school board should file the statement with all officers as the original budget. (23-929).

Appendix B

## STEP-WISE BUDGET DEVELOPMENT
(School District)

I. Review Old Budget
   A. Evaluate expenditures by **line item.**
   B. Evaluate expenditures by **budget category.**
   C. Evaluate receipts.
   D. Determine total expenditures for current FY.
   E. Make special note of excessive miscalculations.

II. Salaries.
   A. Teacher.
      1. Negotiations.
      2. Advise board on fiscal considerations.
      3. Accept negotiated settlement.
      4. Compute dollar amounts on salaries, fringe benefits, and F.I.C.A.
      5. Plan staff size fluctuations.
   B. Custodial.
   C. Cooks.
   D. Transportation.
   E. Clerical staff.
   F. Administrative.
   G. Repairman.

III. Needs Assessment.
   A. Teacher order forms completed.
   B. Plant maintenance requests completed.
   C. Custodial supplies assessment.
   D. Transportation assessment.
   E. Building and property insurance bids.
   F. Administrative supplies.
   G. Utilities.

IV. Prepare Tentative Budget.
   A. Evaluate needs assessment requests.
   B. Anticipate receipts.
   C. Calculate state aid.
   D. Categorize expenditures and receipts.
   E. Compute total taxation.
   F. Determine mill levy.
      1. Determine assessed valuation.
      2. Determine cash reserve.
      3. Sinking fund.
   G. Confirm that budget is under state ceiling.
   H. Present budget to board.
   I. Public hearing.

# NEBRASKA STATE DEPARTMENT OF EDUCATION

Annual Financial Report for the Fiscal Year Ended on _____, 19_____

Batch No. _____

County _____ | | District No. _____ Class of District _____ (2, 3, 4, 5, 6) Organization of _____ (K-6, K-8, K-6-6, K-8-4, K-6-3-3)

NAME OF SCHOOL SYSTEM _____ CITY _____ NEBRASKA

| School Classification | 2 | Approved School | 4 | State Accredited Only | 5 | NCA And State Accredited | 6 | NCA And State Accredited |
|---|---|---|---|---|---|---|---|---|

## GENERAL FUND RECEIPTS

Section A

**Revenue Receipts (Local)**

1. Local District Taxes (1110) _____
2. Public Power District Sales Tax (1120) _____
3. Total Local Taxes (Add 1 and 2) _____
4. Tuition Received from other Districts-Gen. Ed. (1210) _____
5. Tuition Received from Individuals-Gen. Ed. (1220) _____
6. Tuition Received from other Districts-Special Ed. (1230) _____
7. Tuition Received from Individuals-Special Ed. (1240) _____
8. Total Local Tuition Received (Add lines 4 thru 7) _____
9. Transportation Received from other Districts-Gen. Ed. (1310) _____
10. Transportation Received from Individuals-Gen. Ed. (1320) _____
11. Transportation Received from other Districts-Sp. Ed. (1330) _____
12. Transportation Received from Individuals-Sp. Ed. (1340) _____
13. Total Transportation Received (Add lines 9 thru 12) _____
14. Interest Earned on Local Revenue Receipts (1410) _____
15. Local License Fees (1610) _____
16. Police Court Fines (1620) _____
17. Total License Fees & Police Court Fines (Add lines 15 & 16) _____
18. Rental of Sch. Facilities, Gifts Sale of Junk (1720) _____
19. Other Local Receipts (1790) _____
20. Total of all Local Receipts (Add lines 3, 8, 13, 14, 17, 18 & 19) _____

**(County and ESU)**

21. County Fines and License Fees (2110) _____
22. Other County Sources (2130) _____
23. Non-Resident H.S. Tuition Received (2140) _____
24. Homestead Exemption/PPT (2150) _____
25. Prorate Motor Vehicle (2160) _____
26. Educational Service Unit Receipts (2210) _____
27. Total County and ESU Receipts (Add lines 21 thru 26) _____

**(State Receipts)**

28. State Aid (3110) _____
29. Special Educ. Programs (3120) _____
30. Special Ed. Transportation (3130) _____
31. Driver Education (3140) _____
32. School Lunch (State's Share Only) (3150) _____
33. Payments for Wards of State (3160) _____
34. Vocational Ed.-State's Share (3170) _____
35. Other State Appropriations (3190) _____
36. Total State Appropriations (Add Lines 28 thru 35) _____
37. State Apportionment Received (3200) _____
38. In-Lieu-of School Land Tax (3300) _____
39. Insurance Premium Tax (3400) _____
40. Total State Receipts (Add lines 36, 37, 38 and 39) _____
41. Public Law 81-874 (4500) _____
42. Johnson-O'Malley (4600) _____
43. Total Non-Categorical Federal (Add lines 41 and 42) _____
44. Total General Fund Revenue Receipts (Add lines 20, 27, 40, and 43) _____

**(Non-Revenue Receipts)**

45. Sale of Funding Bonds (5100) _____
46. Long Term Loans (5200) _____
47. Insurance Adjustments (5300) _____
48. Sale of Property (5400) _____
49. Transfers from other Funds (5500) _____
50. Other Non-Revenue Receipts (5600) _____
51. Total Non-Revenue Receipts (Add lines 45 thru 50) _____
52. Total General Fund Revenue (Add lines 44 and 51) _____

(Categorical Federal Receipts)

53. Title I, ESEA Carry Over Fund (4100) _____
54. Title I, ESEA Current Fiscal Year Funds (4200) _____
55. Title III, ESEA Funds (4300) _____
56. Title IV B Funds (4320) _____
57. Title IV C (4350) _____
58. Title VI B Funds (4400) _____
59. Title VI D Funds (4450) _____
60. Voc. Ed.-Fed. Portion (4700) _____
61. School Lunch-Fed. Port. (4800) _____
62. Indian Education (4910) _____
63. Career Education (4920) _____
64. Emergency School Assistance Act (4930) _____
65. Head Start (4940) _____
66. Vietnamese Children (4950) _____
67. Right to Read (4960) _____
68. Other Federal Sources (Includes Adult Ed. Reim) (4990) _____
69. Total Categorical Federal Receipts (Add lines 53 thru 68) [ ]
70. GRAND TOTAL OF ALL REVENUE (Add lines 52 and 69) [ ]

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DISBURSEMENTS

Secondary-grade expense includes grades _____ to _____

FUNCTION - ALL Instruction (1000)

| Disbursement by Object | Elementary | Secondary | Total |
|---|---|---|---|
| 71. Regular Salaries of Teachers (110) | | | |
| 72. Substitute Salaries (120) | | | |
| 73. Overtime Salaries (130) | | | |
| 74. Clerical and Aides Salaries (140) | | | |
| 75. Social Security-District's Share (210) | | | |
| 76. Retirement-District's Share (220) | | | |
| 77. Health Insurance-District's Share (230) | | | |
| 78. Other Employee Benefits (290) | | | |
| 79. Purchased Pupil Services (313) | | | |
| 80. Other Contracted Professional and Technical Services (319) | | | |
| 81. Lease Vehicle (Driver Education) (335) | | | |
| 82. Gas and Oil (Driver Education Only) (336) | | | |
| 83. Tires and Parts (Driver Education Only) (337) | | | |
| 84. Tuition Paid Other Districts (Regular Education) (361) | [ ] | [ ] | [ ] |
| 85. Tuition Paid Other Districts (Special Education) (362) | [ ] | [ ] | [ ] |
| 86. Tuition Paid Other Agencies (Special Education) (363) | | | |
| 87. Teaching Supplies (410) | | | |
| 88. Textbooks (420) | | | |
| 89. Audio-Visual Materials (450) | | | |
| 90. Furniture and Equipment (New or Replacement) (530) | [ ] | [ ] | [ ] |
| 91. Vehicle Acquisition (Driver Education Only) (550) | [ ] | [ ] | [ ] |
| 92. Travel Expenses and Mileage (670) | | | |
| 93. Other Miscellaneous Expenses (690) | | | |
| 94. Total Instruction (Add lines 71 thru 93) | [ ] | [ ] | [ ] |

**FROM THE TOTAL AMOUNT OF REPORTED EXPENDITURES ON LINE 94, INDICATE THE TOTAL AMOUNT EXPENDED FOR EACH OF THE FOLLOWING SUB-PROGRAMS:**

95. Total Amount for Special Education (1200) (All levels of Services-I, II, and III) $ _____
96. Total Amount for Driver Education (1330) $ _____
97. Total Amount for Secondary Vocational Education by program:
    98. Special Needs-Disad. (1410) $ _____
    99. Special Needs-Hand (1420) $ _____
    100. Trades and Industry (1430) $ _____
    101. Diversidied Occupations (1440) $ _____
    102. Agriculture (1450) $ _____
    103. Voc. Home Ec. (1460) $ _____
    104. Occup. Home Ec. (1461) $ _____
    105. Distributive Education (1470) $ _____
    106. Bus. Ed. and Off. Occ. (1480) $ _____
    107. Health Occupation (1490) $ _____
    108. Total Secondary Voc. Ed. (Add lines 98 thru 107) $ _____
109. From the Total Amount Reported on line 108. What Portion was Federal Funds? (Should equal line 60 of Receipts)

| UNCTION - SUPPORT SERVICES PUPILS (2100) | Elementary | Secondary | Total |
|---|---|---|---|
| 0. Salary of Professional Staff (110) | | | |
| 1. Salary of Clerical (140) | | | |
| 2. Social Security-District's Share (210) | | | |
| 3. Retirement-District's Share (220) | | | |
| 4. Health Insurance-District's Share (230) | | | |
| 5. Other Employee Benefits – District's Share (290) | | | |
| 6. Purchased Services (313) | | | |
| 7. Supplies (410) | | | |
| 8. Audio-Visual Materials (450) | | | |
| 9. Furniture and Equipment (New or Replacement) (530) | | | |
| 0. Dues and Fees (630) | | | |
| 1. Travel Expenses and Mileage (670) | | | |
| 2. Other Expense (690) | | | |
| 3. Total Support Services Pupils (Add lines 110 thru 122) | | | |

**FROM THE TOTAL AMOUNT OF REPORTED EXPENDITURES ON LINE 123 INDICATE THE TOTAL AMOUNT EXPENDED FOR EACH OF THE FOLLOWING SUB-PROGRAMS:**

124. Attend. and Soc. Work. Ser. (2110) $ _____
125. Guidance Services (2120) $ _____
126. Health Services (2130) $ _____
127. Psychological Services (2140) $ _____
128. Other Pupil Service (2190) $ _____

| FUNCTION – SUPPORT SERVICES STAFF (2200) | Elementary | Secondary | Total |
|---|---|---|---|
| 129. Salary of Professional Staff (110) | | | |
| 130. Salary of Clerical (140) | | | |
| 131. Social Security – District's Share (210) | | | |
| 132. Retirement – District's Share (220) | | | |
| 133. Health Insurance – District's Share (230) | | | |
| 134. Other Employee Benefits – District's Share (290) | | | |
| 135. Purchased Services (313) | | | |
| 136. Contracted Repair Services (318) | | | |
| 137. Professional and Technical Services (319) | | | |
| 138. Supplies (410) | | | |
| 139. Library Books (430) | | | |
| 140. Periodicals (440) | | | |
| 141. Audio-Visual Material (450) | | | |
| 142. Furniture and Equipment (New and Replacement) (530) | | | |
| 143. Dues and Fees (630) | | | |
| 144. Travel Expenses and Mileage (670) | | | |
| 145. Other Expense (690) | | | |
| 146. Total Support Services Staff (Add lines 129 thru 145) | | | |

**FROM THE TOTAL AMOUNT OF REPORTED EXPENDITURES ON LINE 146, INDICATE THE TOTAL AMOUNT EXPENDED FOR EACH OF THE FOLLOWING SUB-PROGRAMS:**

147. Instructional Staff Training and Curriculum Development (2212) $_____
148. Library and Audio-Visual Services (2222 and 2223) $_____
149. Educational Television (2224) $_____

| FUNCTION – GENERAL ADMINISTRATION (2300) | | | |
|---|---|---|---|
| **Board of Education (2310)** | | | |
| 150. Salary or Compensation (110) | | | |
| 151. Salary of Clerical (140) | | | |
| 152. Social Security – District's Share (210) | | | |
| 153. Retirement – District's Share (220) | | | |
| 154. Health Insurance – District's Share (230) | | | |
| 155. Other Employee Benefits (290) | | | |
| 156. Legal Services (317) | | | |
| 157. Advertising and Printing (350) | | | |
| 158. Supplies (410) | | | |
| 159. Furniture and Equipment (New and Replacement) (530) | | | |
| 160. Dues and Fees (630) | | | |
| 161. Fidelity Bond Premiums (642) | | | |
| 162. Travel Expense and Mileage (670) | | | |
| 163. Other Expense (690) | | | |
| 164. Total Board Expense (Add lines 150 thru 163) | | | |

**EXECUTIVE ADMINISTRATION SERVICES (2320)**

165. Salary of Administration Staff (110)
166. Salary of Clerical (140)
167. Social Security – District's Share (210)
168. Retirement – District's Share (220)
169. Health Insurance – District's Share (230)
170. Tax Sheltered Annuity – District's Share (250)
171. Other Employee Benefits – District's Share (290)
172. Supplies (410)
173. Furniture and Equipment (New and Replacement) (530)
174. Dues and Fees (630)
175. Travel Expense and Mileage (670)
176. Other Expense (690)
177. Total Executive Administration (Add lines 165 thru 176)
178. Total General Administration (Add lines 164 and 177)

**FUNCTION – OFFICE OF PRINCIPAL (2400)**

179. Salary of Principal(s) (110)
180. Salary of Clerical (140)
181. Social Security – District's Share (210)
182. Retirement – District's Share (220)
183. Health Insurance – District's Share (230)
184. Other Employee Benefits – District's Share (290)
185. Supplies (410)
186. Furniture and Equipment (New and Replacement) (530)
187. Travel Expense and Mileage (670)
188. Other Expense (690)
189. Total Office of Principal (Add lines 179 thru 188)

**FUNCTION – SUPPORT SERVICES BUSINESS (2500)**

**General Business Support (2510)**

190. Salary of Professionals (110)
191. Salary of Clerical (140)
192. Social Security – District's Share (210)
193. Retirement – District's Share (220)
194. Health Insurance – District's Share (230)
195. Other Employee Benefits – District's Share (290)
196. Purchased Professional and Technical Services (319)

| | Elementary | Secondary | Total |
|---|---|---|---|
| 19 . Postage (341) | | | |
| 198. Telephone (342) | | | |
| 199. Advertising and Printing (350) | | | |
| 200. Supplies (410) | | | |
| 201. Site Acquisition (510) | | | |
| 202. Building Acquisition and Improvement (520) | | | |
| 203. Furniture and Equipment (New and Replacement (530) | | | |
| 204. Interest on Register Warrants (620) | | | |
| 205. Dues and Fees (630) | | | |
| 206. Data Processing (660) | | | |
| 207. Travel Expense and Mileage (670) | | | |
| 208. Other Expense (690) | | | |
| 209. Total General Business (Add Lines 190 thru 208) | | | |
| **Vehicle Acquisition and Maintenance Other than Buses (2520)** | | | |
| 210. Regular Salaries (110) | | | |
| 211. Overtime Salaries (130) | | | |
| 212. Social Security-District's Share (210) | | | |
| 213. Retirement-District's Share (220) | | | |
| 214. Health Insurance-District's Share (230) | | | |
| 215. Other Employee Benefits-District's Share (290) | | | |
| 216. Contracted Services (318) | | | |
| 217. Gas and Oil (336) | | | |
| 218. Tires and Parts (337) | | | |
| 219. Supplies (410) | | | |
| 220. Vehicle Acquisition (New and Replacement) (550) | | | |
| 221. Vehicle Insurance (641) | | | |
| 222. Other Expense (690) | | | |
| 223. Total Vehicle Acquisition and Maintenance (Add lines 210 thru 222) | | | |
| 224. TOTAL BUSINESS SUPPORT (Add lines 209 and 223) | | | |
| **FUNCTION - OPERATION OF PLANT (2610)** | | | |
| 225. Salary of Custodian (110) | | | |
| 226. Overtime Salary (130) | | | |
| 227. Social Security-District's Share (210) | | | |
| 228. Retirement-District's Share (220) | | | |
| 229. Health Insurance-District's Share (230) | | | |
| 230. Other Employee Benefits-District's Share (290) | | | |
| 231. Fuel (321) | | | |
| 232. Electricity (322) | | | |
| 233. Water and Sewer (323) | | | |
| 234. Supplies (410) | | | |
| 235. Other Expense (690) | | | |
| 236. TOTAL OPERATION OF PLANT (Add lines 225 thru 235) | | | |

**FUNCTION - MAINTENANCE OF PLANT (2620)**

| | | | |
|---|---|---|---|
| 237. Regular Salaries (110) | | | |
| 238. Social Security-District's Share (210) | | | |
| 239. Retirement-District's Share (220) | | | |
| 240. Health Insurance-District's Share (230) | | | |
| 241. Other Employee Benefits-District's Share (290) | | | |
| 242. Contracted Services-Repairmen (318) | | | |
| 243. Rentals and Leases (327) | | | |
| 244. Property Insurance (328) | | | |
| 245. Plant Furniture and Equipment (New and Replacement) (530) | | | |
| 246. Other Expense (690) | | | |
| 247. TOTAL MAINTENANCE OF PLANT (Add lines 237 thru 246) | | | |

**FUNCTION - PUPIL TRANSPORTATION (2700)**

**(Include Regular and Special Education Transportation Costs)**

| | | | |
|---|---|---|---|
| 248. Salary of Driver(s) (110) | | | |
| 249. Social Security-District's Share (210) | | | |
| 250. Retirement-District's Share (220) | | | |
| 251. Health Insurance-District's Share (230) | | | |
| 252. Other Employee Benefits-District's Share (290) | | | |
| 253. Contracted Pupil Transportation (331) | | | |
| 254. Mileage To Parents (332) | | | |
| 255. Transportation Paid to other Districts (333) | | | |
| 256. Lease Vehicles (335) | | | |
| 257. Gas and Oil (336) | | | |
| 258. Tires and Parts (337) | | | |
| 259. Bus Repair and Maintenance (338) | | | |
| 260. Furniture and Equipment (New and Replacement) (530) | | | |
| 261. Bus Acquisition New and Replacement) (540) | | | |
| 262. Vehicle Insurance (641) | | | |
| 263. Other Expense (690) | | | |
| 264. TOTAL PUPIL TRANSPORTATION (Add lines 248 thru 263) | | | |

265. **FROM THE TOTAL AMOUNT OF REPORTED EXPENDITURES ON LINE 264, INDICATE THAT PORTION EXPENDED FOR SPECIAL EDUCATION TRANSPORTATION (2760)** $_____

| | | | |
|---|---|---|---|
| 266. **TOTAL INSTRUCTIONAL AND SUPPORT EXPENDITURES (Add lines 94, 123, 148, 178, 189, 224, 236, 247, and 264)** | | | |

**FUNCTION - COMMUNITY SERVICES (3000)**

| | District Wide Only |
|---|---|
| 267. Salary of Staff (110) | |
| 268. Total Fixed Charges (210, 220, 230, 290) | |
| 269. Other Expense (690) | |
| 270. TOTAL COMMUNITY SERVICES (Add lines 267 thru 269) | |

**FUNCTION - DEBT SERVICES (5000)**

271. Redemption of Principal (610) _____
272. Debt Service Interest (620) _____
273. TOTAL DEBT SERVICE (Add lines 271 thru 272) [ ]

**FUNCTION-SUMMER SCHOOL (6000)**

274. Salary of Professional Staff (110) _____
275. Salary of Clerical Staff (140) _____
276. Total Fixed Charges (210, 220, 230, 290) _____
277. Supplies (410) _____
278. Other Expense (690) _____
279. TOTAL SUMMER SCHOOL (Add lines 274 thru 278) [ ]

**District Wide Only**

**FUNCTION - ADULT EDUCATION (7000)**
**(Include Adult Basic and Adult Vocational Education)**

280. Salary of Professional Staff (110) _____
281. Salary of Clerical Staff (140) _____
282. Total Fixed Charges (210, 220, 230, 290) _____
283. Supplies (410) _____
284. Audio-Visual Materials (450) _____
285. Other Expense (690) _____
286. TOTAL ADULT EDUCATION (Add lines 280 thru 285) [ ]

287. **FROM THE TOTAL AMOUNT OF REPORTED EXPENDITURES ON LINE 286, INDICATE THE TOTAL AMOUNT OF FEDERAL FUNDS EXPANDED FOR VOCATIONAL EDUCATION** $ _____

288. **FROM THE TOTAL AMOUNT OF REPORTED EXPENDITURES ON LINE 286, INDICATE THAT PORTION WHICH WAS GENERAL FUND SUPPORT. (EXCLUDE FEDERAL PORTION)** $ _____

**FUNCTION - TRANSFERS (8000)**

| | Elementary | Secondary | Total |
|---|---|---|---|
| 289. Transfers to Lunch (General Fund Support) (750) | _____ | _____ | _____ |
| 290. Transfers to Lunch (Reimbursement from State and Federal) (751) | [ ] | [ ] | [ ] |
| 291. Transfers to Activity Fund (General Fund Support) (752) | _____ | _____ | _____ |
| 292. Transfers to other Funds (759) | [ ] | [ ] | [ ] |
| 293. Total Transfers (Add lines 289 thru 292) | [ ] | [ ] | [ ] |
| 294. TOTAL CURRENT EXPENSE (Add lines 286, 289 and 291) | [ ] | [ ] | [ ] |

| | | | | |
|---|---|---|---|---|
| 296. | TOTAL ADJUSTED CURRENT EXPENSE (Line 294 minus - Lines 84, 85, 90, 91, 119, 142, 159, 173, 186, 201, 202, 203, 220, 245, 255, 260, and 261 of the Disbursement Report) | | | |
| 296. | TOTAL GENERAL FUND EXPENDITURES (Line 294 plus lines 270, 273, 279, 288, 290 and 292) | | | |

FUNCTION - CATEGORICAL FEDERAL PROGRAMS (4000)

| | | |
|---|---|---|
| 297. | Total Expenditures of Title I Carry Over Funds (4100) | |
| 298. | Total Expenditures of Title I Current Fiscal Year Funds (4200) | |
| 299. | Total Expenditures of Title III, ESEA Funds (4300) | |
| 300. | Total Expenditures of Title IV B (4320) | |
| 301. | Total Expenditures of Title IV C (4350) | |
| 302. | Total Expenditures of Title VI B (4400) | |
| 303. | Total Expenditures of Title VI D (4450) | |
| 304. | Total Expenditures of Indian Education (4910) | |
| 305. | Total Expenditures of Career Education Funds (4920) | |
| 306. | Total Expenditures of Emergency School Assistance Act (4930) | |
| 307. | Total Expenditures of Head Start (4940) | |
| 308. | Total Expenditures of Right to Read (4950) | |
| 309. | Total Expenditures of Other Federal Programs (4990) (Do not report School Lunch, Vocational Education or Adult Education here) | |
| 310. | TOTAL CATEGORICAL FEDERAL PROGRAMS (Add lines 297 thru 309) | |
| 311. | TOTAL DISBURSEMENTS (Add lines 287, 296 and 310) | |

**RECAPITULATION**

| | | |
|---|---|---|
| 312. | Balance from Last Year | |
| 313. | Total Receipts this Year (Line 70 of Receipts) | |
| 314. | Total Amount to be Accounted for (Add lines 312 and 313) | |
| 315. | Total Disbursements (Line 311) | |
| 316. | Warrants Outstanding at the Beginning of the Year (Registered and Not Registered) | |
| 317. | Total Amount Payable (Add 315 and 316) | |
| 318. | Warrants Outstanding at the End of the Year (Registered and Not Registered) | |
| 319. | Total Amount Paid During the Year (subtract 318 from 317) | |
| 320. | Balance Now in the District Treasury | |
| 321. | Total Amount Accounted for (Add 319 and 320) (321 must equal 314) | |

**FOR INFORMATION PURPOSES ONLY REGARDING TRANSFERS**

A. **IF ENTRIES APPEAR IN LINE ITEM 49 OF THE RECEIPTS SECTION, SHOWING TRANSFERS RECEIVED BY THE GENERAL FUND FROM OTHER FUNDS, IDENTIFY THE FUND(S) FROM WHICH THE TRANSFERS CAME, SPECIFYING THE ITEMS WHICH SHOW THE TRANSFERS.**

Total Transfers Reported In Line Item 49 $ _____

| | | | |
|---|---|---|---|
| 1. | From _____ | Fund, Line Item _____ | $ _____ |
| 2. | From _____ | Fund, Line Item _____ | $ _____ |
| 3. | From _____ | Fund, Line Item _____ | $ _____ |

Total Incoming Transfers Accounted For (Sum of 1 to 3) $ _____

**B IF ENTRIES APPEAR IN LINE ITEM 292 OF THE DISBURSEMENTS SECTION, REFLECTING TRANSFERS TO OTHER FUNDS FROM THE GENERAL FUND, SHOW THE FUNDS TO WHICH THE TRANSFERS WERE MADE.**

Total Transfers Reported In Line Item 292 $_____

1. To _____ Fund, Line Item _____ $_____
2. To _____ Fund, Line Item _____ $_____
3. To _____ Fund, Line Item _____ $_____

Total Outgoing Transfers Accounted For (Sum 1 to 3) $_____

County _____ District No. _____ Class of District _____ School Year 19____

Section B

## BUILDING FUND

**(To be filled in by all school districts having a Building Fund)**

### RECEIPTS

| | | |
|---|---|---|
| 322. | Sale of Bonds | $_____ |
| 323. | Transfer from Sinking Fund (378) | _____ |
| 324. | Transfers from other Funds | _____ |
| 325. | Sale of Property | _____ |
| 326. | Special State Allocations | _____ |
| 327. | Special Federal Allocations | _____ |
| 328. | Current Loans | _____ |
| 329. | From all other Sources | _____ |
| 330 | Total Receipts (Add 322 thru 329) | _____ |

### DISBURSEMENTS

| | | |
|---|---|---|
| 331. | Purchase or Improvement of Sites | $_____ |
| 332. | New Buildings and Additions | _____ |
| 333. | Building Improvements (Not Repairs) | _____ |
| 334. | Books for New Libraries | _____ |
| 335. | Furniture and Equipment (New or Replacements) | _____ |
| 336. | Transportation Equipment (New or Replacements) | _____ |
| 337. | Other Expense | _____ |
| 338. | Retirement of Loans | _____ |
| 339. | Transfers to other Funds | _____ |
| 340. | Total Disbursements (Add 331 thru 339) | _____ |

### RECAPITULATION

| | | |
|---|---|---|
| 341. | Balance from Last Year | $_____ |
| 342. | Total Receipts (330) | _____ |
| 343. | Total Amount to be Accounted for (Add 341 and 342) | _____ |
| 344. | Total Disbursements (Orders issued) (340) | _____ |
| 345. | Warrants Outstanding at the Beginning of the Year | _____ |
| 346. | Total Amount Payable During the Year (Add 344 and 345) | _____ |
| 347. | Warrants Outstanding at the End of the Year. | _____ |
| 348. | Total Amount Paid During the Year (346 minus 347) | _____ |
| 349. | Balance at the End of the Year | _____ |
| 350. | Total Amount Accounted for (Add 348 and 349) (350 must equal 343) | _____ |

Section C

## BOND INTEREST AND RETIREMENT FUND

**(To be filled in by all school districts which have a Bond Fund. Consolidate funds of all bond issues. Secure information from county treasurer)**

| | | |
|---|---|---|
| 351. | Balance (held by the County Treasurer) From Last Year | $_____ |
| 352. | Amount Raised by Levy | _____ |
| 353. | Receipts from Sale of Refunding Bonds | _____ |
| 354. | Receipts for Accrued Interest on Refunding Bonds | _____ |
| 355. | Receipts from Other Sources | _____ |
| 356. | Total Amount to be Accounted for (Add 351 thru 355) | _____ |
| 357. | Bonds Retired During the Year | _____ |
| 358. | Interest Paid During the Year | _____ |
| 359. | Treasurer's Fee for Collection | _____ |
| 360. | Amount Paid for Refunded Bonds | _____ |
| 361. | Amount Paid for Accrued Interest on Refunded Bonds | _____ |
| 362 | Transfers to Other Funds | _____ |
| 363 | Balance (Held by County Treasurer) at End of Year | _____ |
| 364 | Total Amount Accounted for (Add 357 thru 363 (364 must equal 356) | _____ |

Section D

**SAVINGS, SURPLUS AND/OR DEPRECIATION FUNDS**

be filled in by districts which have a reserve fund for any pose. Consolidate all such funds into this summary)

| | | |
|---|---|---|
| 5. | Consolidated Balance from Last Year | $ |
| 6. | Transfers from other Funds | |
| 7. | Receipts (Earned Interest, etc.) | |
| 8. | Liquidation of Investments | |
| 9. | Total Amount to be Accounted for (Add 365 thru 368) | |
| 0. | Disbursements during the Year | |
| 1. | Investments during the Year | |
| 2. | Refunding Transfers (To other Funds) | |
| 3. | Consolidated Balance at End of Year | |
| 4. | Total Amount Accounted for (Add 370 thru 373) (374 must equal 369) | |

Section D Part II

**SITE AND BUILDING/SINKING FUND**

be filled in by districts which have authorized a Special Building nd. Secure information from County Treasurer)

| | | |
|---|---|---|
| 5. | Balance Held by County Treasurer from Last Year | $ |
| 6. | Amount Raised by Special Levy | |
| 7. | Total Amount to be Accounted for (Add 375 and 376) | |
| 8. | Total Amount Withdrawn by District Treasurer (Same as line 323) | |
| 9. | Treasurer's Fee for Collection | |
| 0. | Balance at End of Year | |
| 1. | Total Amount Accounted for (Add 378 thru 380) (381 must equal 377) | |

Section E

**SCHOOL LUNCH AND MILK FUND**

o be filled in by districts which maintain a school lunch or milk ogram)

| | | |
|---|---|---|
| 2. | State and Federal Reimbursement (751) | $ |
| 3. | Sale of Lunches to Pupils | |
| 4. | Sale of Lunches to Adults | |
| 5. | Reimbursement from General Fund (750) | |
| 6. | Transfers from General Fund (Loan to be Repaid) | |
| 7. | Receipts from other Sources | |
| 8 | Total Receipts (Add 382 thru 387) | |
| | **DISBURSEMENTS** | |
| 9. | Salaries | $ |
| 0. | Cost of Food Supplies | |
| 1. | Other Expense | |
| 2. | Transfers to General Fund (Repayment of Loan) | |
| 3. | Total Disbursements (Add 389 thru 392) | |

**RECAPITULATION**

| | | |
|---|---|---|
| 394. | Balance from Last Year | $ |
| 395. | Total Receipts (388) | |
| 396. | Total Amount to be Accounted for (Add 394 and 395) | |
| 397. | Total Disbursements (393) | |
| 398. | Orders Outstanding at the Beginning of the Year | |
| 399. | Total Amount Payable (Add 397 and 398) | |
| 400. | Orders Outstanding at the End of the Year | |
| 401. | Total Amount Paid (399 Minus 400) | |
| 402. | Balance at the End of the Year | |
| 403. | Total Amount Accounted for (Add 401 and 402) (403 must equal 396) | |

Section F

**SCHOOL ACTIVITIES AND AUXILIARY FUNDS**

(To be filled in by all districts which have a School Activities Fund and/or an Auxiliary Fund(s). Include all Auxiliary Funds which are not summarized elsewhere in this report. Report school lunch account in Section E)

| | | |
|---|---|---|
| 404. | Balance from Last Year, All Accounts | $ |
| 405 | General Fund Reimbursement (752) | |
| 406. | Transfers from General Fund (Loans to be Repaid) | |
| 407. | Other Receipts, All Funds | |
| 408. | Total Amount to be Accounted for (Add 404 thru 407) | |
| 409. | Total Disbursements, All Accounts | |
| 410. | Transfers to General Fund (Repayment of Loan) | |
| 411. | Orders Outstanding at Beginning of the Year | |
| 412. | Total Amount Payable During the Year (Add 409 thru 411) | |
| 413. | Orders Outstanding at the End of the Year | |
| 414 | Total Amount Paid During the Year (412 minus 413) | |
| 415. | Balance at the End of the Year, All Accounts | |
| 416. | Total Amount Accounted for (Add 414 and 415) (416 must equal 408) | |

Section G

## STATUS OF INDEBTEDNESS

(To be filled in by all districts which have a bonded and/or a floating debt. Secure information about bonds from the county clerk)

### BONDS

417. Bonds Outstanding at the Beginning of the Year $_____
418. Bonds Issued during the Year for Sites and Buildings _____
419. Bonds Issued during the Year to Fund Floating Indebtedness _____
420. Bonds Issued during the Year to Refund Old Issue of Bonds _____
421. Total Amount of Bonds Issued during the Year and Bonds Outstanding at Beginning of Year (Add 417 thru 420) _____
422. Bonds Retired during the Year _____
423. Bonds Refunded during the Year _____
424. Total Amount of Bonds Retired and Refunded during the Year (Add 422 and 423) _____
425. Bonds Outstanding at End of the Year (421 minus 424) _____

### REGISTERED WARRANTS

426. Registered Warrants at the Beginning of the Year $_____
427. Warrants Registered during the Year _____
428. Total Amount of Warrants Registered at the Beginning and during the Year (Add 426 and 427) _____
429. Registered Warrants Paid during the Year _____
430. Registered Warrants at the End of the Year (428 minus 429) _____

### REGISTERED NOTES

431. Registered Notes at the Beginning of the Year $_____
432. Notes Registered during the Year _____
433. Total Amount of Notes Registered at the Beginning and during the Year (Add 431 and 432) _____
434. Registered Notes Paid during the Year _____
435. Registered Notes at the End of the Year (433 minus 434) _____
436. Total Indebtedness at the End of the Year (Add 425, 430, and 435) _____

COUNTY DISTRICT NO. CLASS OF DISTRICT SCHOOL YEAR 19

SECTION H

## TAXATION

(for the Reporting Year)

(To be filled in by all school districts. Secure information from county clerk or assessor)

### ASSESSED VALUE OF SCHOOL DISTRICT

437. Real Estate, City and Village _____
438. Real Estate, Farm _____
439. Public Utilities (Railroads, Telephone, Gas, Etc.) _____
440. Automobiles (January 1st Estimate) _____
441. Other Tangible Personal Property, City and Village _____
442. Other Tangible Personal Property, Farm _____
443. Total Assessed Value (Tangible) (Add 437 thru 442) _____

### MILL LEVIES FOR SCHOOL PURPOSES FOR THE REPORTING YEAR CLASS II – VI

| | | MILL LEVY |
|---|---|---|
| 444. | General Fund (Operation & Maintenance) | |
| 445. | For District Bonds and Interest | |
| 446. | For Sinking Fund (Special Building Fund) | |
| 451. | Other Purposes (Specify) | |
| 452. | Total Levy All Purposes (ADD LINES 444 THRU 451) | |

SECTION I

453. Total Requirements _____
454. Miscellaneous Revenue _____
455. Net Cash Balance _____
456. Total Revenue other than Property Tax (Line 454 Plus 455) _____
457. Property Tax Requirement (Line 453 Minus 456) _____
458. Add ____ % For Delinquent Taxes _____
459. Add 1% Line 457 For County Treasurer's Collection Fee _____
460. Current Property Tax Requirement (Add 457, 458, and 459) _____

**SECTION J**

**PRESENT VALUE OF SCHOOLPLANT**
**(To be filled in by all school districts)**

| | | Elementary | Secondary | Total |
|---|---|---|---|---|
| 461. | Schoolbuildings (Prorate Multi-Purpose Buildings to Elementary and Secondary) | $ | $ | $ |
| 462 | Contents of Schoolbuildings (Prorate Contents of Multi-Purpose Buildings to Elementary and Secondary) | | | |
| 463. | Teacherage and Contents (Prorate to Elementary and Secondary) | | | |
| 464. | Other Buildings and Contents (Prorate to Elementary and Secondary) | | | |
| 465. | Total Schoolplant Value (Add lines 461 thru 464) | $ | $ | $ |
| 466. | Transportation Equipment | | | $ |

**SECTION K**

**UNIT (PER PUPIL) COSTS**
**(To be filled in by all school districts)**

| | | Elementary | Secondary | Total |
|---|---|---|---|---|
| 467. | Average Daily Attendance (same grades as prorated expense) | | | |
| 468. | Average Daily Membership (same grades as prorated expense) | | | |
| 469. | Total Adjusted Current Expense (Line 295) | $ | $ | $ |
| 470. | Total Value of Plant and Contents (465) | | | |
| 471. | Annual Depreciation of Plant and Contents (3% of 470) | | | |
| 472. | Total Annual Cost (Add 469 and 471) | | | Average |
| 473. | Annual Cost Per Pupil, ADA (Divide 472 by 467) | | | |
| 474. | Annual Cost Per Pupil, ADM (Divide 472 by 468) | | | |

SECTION L

INVESTMENT POSITION
(Securities owned at end of year)
KIND OF SECURITY

| | | Face Value |
|---|---|---|
| 475 | | $ |
| 476. | | |
| 477. | | |
| 478. | | |
| 479. | | |

TOTAL FACE VALUE 480.

STATE OF NEBRASKA )
) ss.
_____ County )

I THE UNDERSIGNED, SECRETARY OF THE BOARD OF EDUCATION, SCHOOL DISTRICT NO. _____ _____ COUNTY, NEBRASKA, DO SOLEMNLY SWEAR OR AFFIRM THAT THE FOREGOING ANNUAL FINANCIAL REPORT IS TRUE AND CORRECT.

_____
SIGNATURE OF SECRETARY

SUBSCRIBED AND SWORN TO BEFORE ME THIS _____ DAY OF _____, 19_____

_____
NOTARY PUBLIC OR OTHER ACKNOWLEDGING OFFICER

APPROVED BY THE COUNTY SUPERINTENDENT OF _____ COUNTY, NEBRASKA

_____
SIGNATURE OF COUNTY SUPERINTENDENT

_____, 19_____
DATE OF APPROVAL